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Hon. Jack Davis, Minister

MINERAL RESOURCES DIVISION
Geological Survey Branch

EXPLORATION IN BRITISH COLUMBIA 1988

Part A - Overview of Exploration Activity

Part B - Geological Descriptions of Properties

Part C - Assessment Report Summaries, Minerals and Coal

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VICTORIA
BRITISH COLUMBIA
CANADA

JULY 1989

Skyline Gold Corporation - Johnny Mountain Mine, 1988

FOREWORD

This publication records results of mineral exploration and development in B.C. during 1988. It has its origins in the Annual Report of the Minister of Mines begun in 1874. For the first 75 years the Annual Report contained informative and descriptive articles on mines and properties and became known as the authoritative record of exploration and mining in the Province.

In recent years, the volume largely contained summaries of Assessment Reports, filed in compliance with the Mineral Act. With the improvement in computer and reproduction technology, an index to assessment reports is now available in hard copy and digital format; copies of the actual reports are available for purchase in hard copy and microfiche formats. Consequently it has been decided to discontinue Part C, Assessment Reports summaries, in this publication beginning with the next issue.

The new focus for Exploration in B.C. is reflected in the content and format of parts A and B: Part A, an exploration overview prepared by the District Geologists and, Part B, geological descriptions of mining camps and exploration properties examined by Ministry geologists.

1988 was a record year for mineral exploration in B.C. with estimated expenditures of $209 million. This was spurred, in large part, by a continued firm price for gold (Cdn $537.95 per ounce, 1988 average), and a record number of financings from flow-through shares.

Exploration continued to focus on precious metals but as the prices for base metals firmed during the year, explorationists again began to direct their attention to base metal targets, in particular, porphyry copper-gold deposits.

Two new mines opened in 1988. Skyline Explorations Limited opened their Johnny Mountain gold mine (*see* Frontispiece) and Candorado Mines Ltd. began a heap leach operation processing tailings from the old Nickel Plate mine.

W.R. Smyth
Chief Geologist

PART A
OVERVIEW OF EXPLORATION ACTIVITIES

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PART A

OVERVIEW OF EXPLORATION ACTIVITIES

EXPLORATION, DEVELOPMENT AND PRODUCTION HIGHLIGHTS BRITISH COLUMBIA, 1988

By V.A. Preto
Manager, District Geology and Coal Resources

INTRODUCTION

Mineral exploration continued at an all-time high in 1988, with the main focus remaining on gold and silver. A record of $192 million in mineral exploration expenditures was registered in 1987, only to be shattered in 1988 by an expenditure of $209 million, 62 per cent of which was funded by flow-through financing. The number of claims staked in 1988 was 73 870, down by 24 387 from the 98 257 claims recorded in 1987. This represents a 25 per cent decrease in staking activity from the previous year, a reasonable figure assuming many companies have commenced advanced exploration programs after completing a ground acquisition phase in the earlier stages of the precious metals boom.

Capital investment in new mines, that have either opened in 1988 or are expected to open in 1989, is in excess of $315 million and represents the creation of 1100 new jobs required for the operation of these projects.

Total value of mineral production for 1987 was $3.5 million, up marginally from $3.2 billion in 1986. Coal and copper continued to register the highest total values at about $892 and $842 million respectively. In 1987 gold was firmly in second place in the metals sector with a production of 389 000 ounces, or 12.1 tonnes, valued at $239.1 million.

Estimates for 1988 are up for coal and copper with production projected at $1 023 billion, and $969 million respectively. Gold production is expected to increase to 424 000 ounces valued at $237.6 million due to lower prices for this metal.

The vigorous exploration pace of the past three years has resulted in an unprecedented level of development and a record number of submissions to the provincial Mine Development Review Process for new mine development approval. A total of 40 projects are currently in the review process, 32 of which are for precious metals (*see* Table A2).

Two new gold operations opened in 1988, the Skyline Explorations Ltd. Johnny Mountain mine, located in the rugged northwestern part of the province, 95 kilometres northwest of Stewart, and Candorado Mines Ltd. tailings - leach operation at Hedley. In the same geologic environment as Skyline, three other gold mines are being readied for production in 1989: the nearby Snip deposit of Delaware Resources Corporation and Cominco Ltd., and, near Stewart, the Silbak Premier - Big Missouri project of Westmin Resources Limited, Silbak Premier Mines Ltd. and Canacord Resources Inc. and the Goldwedge project of Catear Resources Inc.

Elsewhere, new mines under construction include Lawyers of Cheni Gold Mines Inc., Golden Bear of North American Metals B.C. Corporation, Samatosum of Minnova Inc., Esperanza of Esperanza Explorations Ltd., and Spud of McAdam Resources Inc., and all precious metal projects, and the McDame asbestos project of Cassiar Mining Corporation.

Most exploration and development projects were for precious metals and were located in the northwestern part of the province where the Iskut gold camp, site of the Johnny Mountain and Snip deposits, has attained a very significant status with greater than 1.75 million ounces, or nearly 55 tonnes, of gold identified in these two deposits alone.

EXPLORATION HIGHLIGHTS

Precious metals are being sought and found in the five main geological settings briefly summarized below:

TRANSITIONAL DEPOSITS

These deposits formed in a transitional setting between the classic epithermal and the deeper seated porphyry environments. They include most of the important deposits of the Stewart and Iskut camps, specifically Silbak Premier - Big Missouri of Westmin Resources, the Sulphurets property of Newhawk Gold Mines Ltd., the Johnny Mountain mine of Skyline Explorations, and the nearby Snip deposit of Delaware Resources and Cominco Ltd. Johnny Mountain is British Columbia's newest gold mine and the other deposits are under development or at an advanced stage of exploration.

PORPHYRY DEPOSITS

Alkalic or syenitic porphyry copper systems in British Columbia have long been known to contain significant amounts of gold which is an important byproduct at the Afton and Similkameen mines. Some subeconomic copper deposits located during porphyry exploration in the 1960s are being explored again to determine whether they contain gold-enriched zones which may be selectively mined. Examples from central British Columbia are the Q.R. deposit held by Q.P.X. Minerals Inc. and the nearby Cariboo Bell deposit of Imperial Metals Corporation, where definition drilling is underway. Targets at Cariboo Bell are pittable zones of 2.5 to 4.5 million tonnes grading at least 6.8 grams per tonne gold. The outlook for this property is very good. Previously estimated porphyry copper reserves were 116 million tonnes grading 0.31 per cent copper and 0.41 gram per tonne gold.

Other interesting projects of this type, all in the Omineca region northwest of Prince George, are the Phil-Heidi (Mount Milligan) deposit of Continental Gold Corporation, the Tas property of Noranda Exploration Company, Limited, and the Takla-Rainbow property of Cathedral Gold Corporation. All of these properties have good potential for large low-grade deposits grading 0.5 per cent or less copper and 1 gram per tonne or less gold and smaller, higher grade shear-controlled targets.

Near Slocan, in the south-central part of the province, gold-copper mineralization at the Willa deposit of Northair Mines Limited occurs in silicified porphyries, intrusive breccia and strongly propylitized coeval volcanics of the Lower Jurassic Rossland Group.

EPITHERMAL DEPOSITS

Classic epithermal systems in Mesozoic and Tertiary volcanic rocks are the host environment for at least one of the province's developing gold mines. The Lawyers deposit of Cheni Gold Mines Inc. is located in the Toodoggone area, 300 kilometres north of Smithers, and is expected to begin production very early in 1989.

Other deposits of this type, that have reached the advanced exploration stage, include the Al deposit of Energex Minerals Ltd., also in the Toodoggone area, and the Cinola deposit of City Resources (Canada) Ltd., on the Queen Charlotte Islands. Exciting new discoveries in Eocene volcanic rocks in the easily accessible Okanagan region include the Brett deposit of Huntington Resources Inc. and the Vault deposit of Canadian Nickel Company Ltd.

VOLCANOGENIC MASSIVE SULPHIDES

Since the discovery by Westmin Resources of the world class H-W massive sulphide deposit on Vancouver Island in 1979, Paleozoic and Mesozoic submarine volcanic sequences in British Columbia have been intensively explored for similar deposits. The silver-rich Samatosum deposit of Minnova Inc. was discovered late in 1985 and is scheduled to begin production early in 1989. Other massive sulphide deposits under active exploration include the Lara deposit of Laramide Resources Limited on Vancouver Island and, in the northwestern part of the province, the Windy Craggy deposit of Geddes Resources Ltd. and the Tulsequah Chief deposit of Redfern Resources Ltd. and Cominco Ltd.

GOLD-ENRICHED SKARNS

The reopening of the Nickel Plate mine of Corona Corporation in 1987 as an open-pit operation, brought into focus the importance of this deposit type in British Columbia. The province has more than 300 recorded skarn occurrences, roughly one third of which contain gold. The Tillicum Mountain deposit of Esperanza Explorations Ltd., in the Kootenay region, has been actively explored by Esperanza since 1980, with total expenditures amounting to approximately $8 million.

Other potentially economic gold-enriched skarns include deposits at Zeballos on Vancouver Island, on Banks Island, on Texada Island and in the Rossland volcanic rocks near Nelson, where the Second Relief is a past producer which yielded nearly 3.1 tonnes of gold.

OTHER SIGNIFICANT DEPOSITS

A number of other precious metal deposits, mostly associated with major faults, are definitely highlights on the British Columbia scene.

The Golden Bear deposit of North American Metals Inc., located west of Dease Lake, is under development. Gold occurs in silicified and breccia zones along a major fault between Permian limestones and upper Triassic andesites.

The mesothermal veins of the Bridge River gold camp, historically the province's largest gold producer, are associated with major fault structures. The Bralorne mine of Corona Corporation and the nearby Congress deposit of Congress Operating Corporation are the targets of major exploration programs.

On Vancouver Island, Westmin Resources continued with a major exploration program on its Debbie property southeast of Port Alberni. Gold mineralization occurs in veins and extensive quartz-carbonate-pyrite alteration zones associated with north-trending faults, as well as in a magnetite-jasper-sulphide-bearing chert with quartz-vein stockwork in the footwall basalt.

The Harrison Lake gold deposit of Bema International Resources Inc., located near Vancouver, occurs in a quartz-vein stockwork in a Tertiary quartz diorite and continues to be aggressively explored.

A major shift in production is underway at the Cassiar asbestos mine. Reserves in the open pit are nearing exhaustion and the large McDame underground orebody is being developed to ensure continued production at least to the year 2000.

Although in 1987 coal ranked with copper as the province's highest value mineral product at $855 million, overall production value dropped by $75 million or 8 per cent from the previous year, while output rose by 1.3 million tonnes. Difficult and depressed coal markets continue to delay a production decision at the large Mount Klappan anthracite project of Gulf Canada Resources Limited and are dominating critical contract price negotiations for the huge Quintette project of Quintette Coal Ltd.

OPERATING MINES

NORTHWESTERN DISTRICT

Six mines operated in the Northwestern District in 1988 (Table A1). They employ more than 1000 people and continued to play an important economic role in the region. Generally higher commodity prices for base metals and a more stable demand for asbestos fibre resulted in positive profit margins for the open-pit mines. Gold

TABLE A1
OPERATING MINES IN BRITISH COLUMBIA - 1988

Map No. Fig. A1	Mine	Owner	Mining Division	Tonnes Milled (000s)	Rated Capacity (tpd)	% Annual Rated Capacity	Deposit Type	Reserves/Production
NORTHWESTERN DISTRICT								
16	Erickson Gold	Total Erickson Resources Ltd.	Liard	69.2	270	70	Au-Ag vein	Reserves 23 kt @ 34.3 g/t Au.
35	Johnny Mountain	Skyline Explorations Ltd.	Liard	24.2	180	37	Au-Ag vein	Reserves: 984 kt @ 22.1 g/t Au. Production: 339.2 kg Au, 662.7 kg Ag, 99.8 t Cu in concentrates.
94	Equity Silver	Equity Silver Mines Ltd.	Omineca	3 006.1	10 000	82	Transitional Ag-Au-Cu	Reserves: 12.13 Mt @ 85.5 g/t Ag; 1.12 g/t Au; 0.25% Cu.Production: 186 162 kg Ag, 1559.4 kg Au, 7022 t Cu in concentrates; 557 kg Au, 1388 kg Ag in dore bars.
14	Cassiar	Cassiar Mining Corporation	Liard	1 450	3 600	110	Ultramafic; asbestos	Reserves: 2.04 Mt. Open-pit reserves be exhausted in August 1989; McDame u/g mine scheduled for production in 1990.
15	Taurus	Taurus Resources Ltd.	Liard	4.0	165	7	Au-Ag vein	Proven reserves exhausted. Mill closed December after processing bulk sample from Hopeful zone.
327	Bell	Noranda Minerals Inc.	Omineca	5 368.5	17 000	87	Porphyry Cu	Reserves: 18.3 Mt @ 0.51% Cu; byproduct Au. Production: 22 625 t Cu, 874 kg Au, 3171 kg Ag.
CENTRAL DISTRICT								
139	Bullmoose	Bullmoose Operating Corp.	Liard	17 11.8	6 300	74	Coal	Reserves: 68.7 Mt metallurgical coal. Production: 1.7 Mt metallurgical coal
140	Quintette	Quintette Coal Ltd.	Liard	4 697.3	17 260	75	Coal	Reserves: 231 Mt metallurgical coal, 20.5 Mt thermal coal. Production: 4.45 Mt metallurgical coal.
141	Endako	Placer Dome Inc.	Cariboo	6 915.5	29 600	64	Porphyry Mo	Reserves: 128 Mt @ 0.081% Mo.
142	Gibraltar	Gibraltar Mines Ltd.	Cariboo	5 510.7	35 000	43	Porphyry Cu-Mo	Reserves: 200 Mt @ 0.31% Cu, 0.009% Mo. Production: 4.2 kt Cu in concentrates and cathode Cu from electrowinning plant.
143	Blackdome	Blackdome Mining Corp.	Clinton	77.0	200	107	Epithermal vein, Au-Ag	Reserves: 180 kt @ 25.5 g/t Au, 74.0 g/t Ag.

KOOTENAY DISTRICT								
144	Line Creek	Crows Nest Resources Ltd.	Fort Steele	2 094.9	10 400	55	Coal	Production: 1.2 Mt metallurgical coal, 0.6 Mt thermal coal.
145	Balmer	Westar Mining Ltd.	Fort Steele	5 462.6	26 000	68	Coal	Production: 5.7 Mt metallurgical coal, 75 kt thermal coal.
146	Coal Mountain	Byron Creek Collieries	Fort Steele	1 030.1	4 930	57	Coal	Production: 0.9 Mt thermal coal.
147	Greenhills	Westar Mining Ltd.	Fort Steele	3 053.8	9 900	85	Coal	Production: 2.2 Mt metallurgical coal, 0.54 Mt thermal coal, 0.31 Mt special-blend coal.
148	Fording River	Fording Coal Ltd.	Fort Steele	6 020.4	15 900	104	Coal	Production: 4.6 Mt metallurgical coal, 0.35 Mt thermal coal.
150	Sullivan	Cominco Ltd.	Fort Steele	2 038.1	7 300	76	Sedex Zn-Pb-Ag	Reserves: 24.73 Mt @ 4.6% Pb, 7.1% 29 g/t Ag
166	Silvana	Dickenson Mines Ltd.	Slocan	27.8	90	84	Ag-Pb-Zn-Cd vein	Reserves: 43 kt @ 433 g/t Ag, 5.0% Pb, 5.8% Zn.
175	Union	Sumac Ventures Ltd.	Greenwood	10.9	heap leach		Tailings and and dumps	Production: (to August) 8 kg Au, 243 kg Ag.
177	O.B. - Skylark	Viscount Resources Ltd.	Greenwood	n/a	custom milled	n/a	Ag-Au vein	Reserves: 54.5 kt @ 924.5 g/t Ag, 3.4 g/t Au.
SOUTH-CENTRAL DISTRICT								
200	Nickel Plate	Corona Corporation	Similkameen	879.6	2 200	110	Au-Ag skarn	Reserves: ~ 8.25 Mt @ 3.02 g/t Au.
207	Copper Mountain	Similco Mines Ltd. (Cassiar Mining)	Similkameen	7 477.8	22 000	93	Porphyry Cu-Au-Ag	Reserves: proven; 47 Mt @ 0.46% Cu; possible 103 Mt @ 0.42% Cu.
220	Afton	Afton Operating Corp.	Kamloops	2 807.2	7 700	100	Porphyry	Reserves: Crescent Zone; 1.07 Mt @ 0.46% Cu, 0.206 g/t Au. Ajax Zone; 24.5 Mt @ 0.46% Cu, 0.34 g/t Au.
328	Valley Copper/ Lornex	Highland Valley Joint Venture	Kamloops	40 013.7	117 500	93	Porphyry Cu-Mo	Reserves: 767.2 Mt @ 0.4% Cu, 0.008% Mo.
329	Brenda	Brenda Mines Ltd.	Osoyoos	11 286.1	30 000	103	Porphyry	Reserves: ~ 15 Mt @ 0.167% Cu, 0.039% Mo
330	Highland Bell	Teck Corporation	Greenwood	37.3	107	96	Ag-Pb-Zn vein	
SOUTHWESTERN DISTRICT								
324	Myra/H-W	Westmin Resources Ltd.	Alberni	1 138.6	4 000	89	Volcanogenic massive sulphide	Reserves (Jan. 1988): 12.5 Mt @ 2.40% Cu, 0.36% Pb, 5.28% Zn, 2.4 g/t Au, 37.7 g/t Ag.
325	Island Copper	BHP-Utah International Inc.	Nanaimo	16 703.9	44 900	102	Porphyry Cu-Mo	Reserves (current pit): ~ 30 Mt
326	Quinsam	Quinsam Coal Limited	Nanaimo				Coal	Production: 180 kt thermal coal sold to B.C. cement industry.

* Annual rated capacity = daily rated capacity x 365

prices were down from 1987, but remained at economic levels for the underground gold mines.

Cassiar Mining Corporation (14) maintained its production levels at approximately 100 000 tonnes of ore per month from its open-pit operation with no shutdown during the summer months. The waste-to-ore ratio decreased throughout the year as the bottom of the pit was approached. At the end of the year very little waste was being mined and some ore was being stockpiled. Slope stability has become a problem with the development of major fractures on the east and south walls, and the open-pit operation will be completed by April 1989; stockpiled ore will keep the mill supplied until 1990 when the underground McDame deposit will begin production.

Total Energold Corporation continued to produce at approximately 250 tons per day from its Erickson mine (16) until the end of November when all accessible ore reserves were mined out. Total Energold is currently driving an adit to access the Michelle zone beneath the Cusac mine. The mill is expected to reopen in 1990. The other gold mine in the Cassiar Camp, Taurus (15), processed a large bulk sample from the Hopeful zone. It also closed down its mill in December, 1988, pending assessment of possible sources of more ore.

The first new mine in the Northwestern District in seven years, the Reg (Johnny Mountain) (35), opened in August 1988. A gold mine located south of the Iskut River and accessible only by air, it is currently producing 180 tonnes per day. In 1988 the mill processed 24 250 tonnes of ore and produced 339 216 grams of gold, 662 695 grams of silver and 99 810 kilograms of copper in concentrates.

On Babine Lake the Bell (327) open-pit mine continued to produce 15 000 tonnes of ore per day at an average grade of 0.50 per cent copper with a waste-to-ore ratio of 0.85:1. The mill operated at 14 760 tonnes per day and produced 22 625 tonnes of copper, 874 kilograms of gold and 3171 kilograms of silver in concentrates.

The Equity Silver (94) open-pit mine south of Houston operated at a mining rate of 10 000 tonnes per day with a waste-to-ore ratio of 3.03:1. The mill processed 8500 to 9000 tonnes per day and produced 186 162 kilograms of silver, 1559.4 kilograms of gold and 7022 tonnes of copper in the concentrate and 557 kilograms of gold and 1388 kilograms silver in doré bars.

CENTRAL DISTRICT

There were two active coal mines and three active metal mines in the district (Table A1). At the Bullmoose mine (139), Teck Corporation produced 1.7 million tonnes of clean coal, almost all of it being metallurgical grade. Quintette Coal (140) produced over 4.4 million tonnes of metallurgical coal and small shipments of thermal coal, with the bulk of the production coming from the Mesa and Mesa Extension pits.

Endako Mines Division of Placer Dome Inc. (141) milled over 6.9 million tonnes of ore grading 0.081 per cent molybdenum during the year, and concentrated on the ultimate design of the pit. Gibraltar Mines Ltd. (142) milled 5.5 million tonnes of ore grading 0.31 per cent copper and 0.009 per cent molybdenum to mid-May, when the pit was closed by a labour dispute. The heap leach/electrowinning plant continued to produce at nearly 14 tonnes of cathode copper per day, most of which was stockpiled at the mine. Blackdome Mining Corporation (143) continued to mill approximately 200 tonnes of ore per day grading 25.5 grams gold and 74 grams silver per tonne. An aggressive program of more than 2250 metres of underground development and more than 100 surface and underground diamond-drill holes concentrated on the No. 1 and No. 2 vein systems, but also included drilling or underground exploration of the Giant and Redbird veins, and the newly discovered Watson and No. 17 veins. Ore grade mineralization was discovered in the Giant, Redbird and No. 17 veins; the latter appears to be an extension of the No. 1 vein that has provided most of the mine ore to date.

KOOTENAY DISTRICT

At the Silvana mine (166), steeply dipping sheared and mineralized structures have been found perpendicular to the main lode of silver-bearing lead-zinc ore. One of these structures is sufficiently large to be mined and grades 1370 grams per tonne silver with the only apparent sulphide present being sphalerite. Dickenson Mines Limited has been successful in using soil geochemistry to trace the main lode structure on surface through overburden. The main lode is cut by a number of low-angle faults which are not easily recognized. These faults are believed to displace lodes of other old mines to the north (for example Queen Bess). To date about 740 metres of exploration and development drilling, mostly underground, has been completed at Silvana.

The O.B.-Skylark silver-gold mine (177) at Greenwood is shipping ore grading 924.5 grams per tonne silver and 3.4 grams per tonne gold to the Dankoe mill at Keremeos where it is milled at a rate of 110 tonnes per day. Reserves are estimated at 54 500 tonnes. 1988 work involved 680 metres of drilling from surface and 1608 metres underground. There was 476 metres of drifting for development and stoping.

The Union mine (175) reopened in April. By the end of August, 8 kilograms of gold and 243 kilograms of silver had been produced from 10 900 tonnes of ore by heap leaching. About 70 000 tonnes of tailings and old dumps are available for treatment.

Six thousand metres of mine development was completed at the Sullivan mine (150).

SOUTH-CENTRAL DISTRICT

Strong copper prices and the currently stable environment for gold production have greatly improved profitability, ore reserves and mine development plans at operating mines in south-central British Columbia.

The Highland Valley Copper (328) joint venture operated throughout 1988 at an average production rate of 110 000 tonnes per day, with a stripping ratio of 0.9:1. At the beginning of the year the joint venture announced plans to move and incorporate the two Highmont mills into the Lornex milling complex at an estimated cost of $70 million. Construction is reported to be on schedule and the addition is expected to be on stream by May 1989. The rated capacity will then be increased to 131 000 tonnes per day. Current reserves are in the order of 770 million tonnes grading 0.4 per cent copper and 0.008 per cent molybdenum (combined Lornex and Valley pits).

Afton Operating Corporation began production in 1988 from the Crescent pit (220) (Comet-Davenport property) following depletion of reserves in the Pothook zone last spring. The Crescent zone contains reserves of 1.07 million tonnes grading 0.46 per cent copper and 0.206 gram per tonne gold. The company has announced that it will develop the Ajax property, several kilometres south of Kamloops, and process the ore at the Afton mill. The Ajax project is currently under review by the Mine Development Steering Committee. Ajax reserves total 24.5 million tonnes grading 0.46 per cent copper and 0.34 gram per tonne gold. Capital costs are expected to be $11 million. The company currently operates at an average production rate of 7700 tonnes per day, but will increase to about 10 000 tonnes per day when the Ajax pit comes on stream. The Ajax project will extend Afton's operation for at least another seven years.

The Copper Mountain - Ingerbelle mine complex (207) south of Princeton was purchased in 1988 by Cassiar Mining Corporation from Newmont Mines Limited for $10 million. The new company, Similco Mines Ltd., is processing approximately 20 000 tonnes of ore per day. Current reserves are: proven, 47 million tonnes grading 0.46 per cent copper; probable, 103 million tonnes grading 0.42 per cent copper.

Since opening in 1987, production at the Nickel Plate mine (200) has been maintained at an average rate of about 2450 tonnes per day, with a 9:1 stripping ratio. Open-pit ore is currently being blended with ore mined from selected underground zones. Ore reserves are approximately 8.25 million tonnes grading 3.02 grams per tonne gold. During 1988 Corona Corporation maintained an exceptionally high level of exploration in the mine area and on adjacent properties.

Brenda Mines Ltd. (331) produced at a daily rate of 30 000 tonnes, for a 1988 total of approximately 11.3 million tonnes. Current reserves are 15 million tonnes grading 0.167 per cent copper and 0.039 per cent molybdenum. In March of 1988 the company received a discount on its electrical costs, which extended the life of the mine to mid-1990.

At Beaverdell, Teck Corporation's Highland Bell mine (332) operated at 100 tonnes per day throughout 1988. From 1900 to the end of 1988 the mine has produced 1150 tonnes of silver.

SOUTHWESTERN DISTRICT

At the Myra Falls Operations (324) of Westmin Resources Limited near the south end of Buttle Lake, full production has continued through 1988 from the large H-W and the smaller Lynx underground mines. Starting in late 1987, the capacity of the mill was expanded by 33 per cent and it is now operating at or near its new rated capacity of 4000 tonnes per day. Total published reserves in all categories at the start of 1988 were 12.5 million tonnes averaging 2.40 per cent copper, 0.36 per cent lead, 5.28 per cent zinc, 2.4 grams per tonne gold and 37.7 grams per tonne silver. Underground exploration drilling is ongoing at both mines in order to maintain and confirm future reserves. The orebodies being mined are polymetallic massive sulphide deposits occurring in rhyolitic units within a mixed package of Paleozoic Sicker Group volcanic rocks.

The Island Copper mine (325) of BHP-Utah Mines Limited on Rupert Inlet near Port Hardy also continued in full production in 1988, at a milling rate of approximately 45 000 tonnes per day. Only about 30 million tonnes of the original 257-million-tonne orebody remain accessible to mining within the present open pit. However, a substantial tonnage of additional ore-grade mineralization was identified by drilling in the southeast corner of the pit in 1985. It is beyond the design limits of the present pit but, if developed, would add about four years to the remaining life of the mine. A procedure for recovering these additional reserves has been designed, government guidelines and approvals are in place, and a corporate decision to proceed was announced early in December. The Island Copper orebody is a porphyry copper-molybdenum-gold deposit associated with a Jurassic quartz feldspar porphyry dyke intruding Bonanza Group andesitic tuffs.

Quinsam Coal Limited has been producing thermal coal from its coal deposit at Middle Quinsam Lake (326) at a steady rate of 15 000 tonnes per month through 1988 and selling it to the British Columbia cement industry. The company is still waiting for improved thermal coal markets before proceeding to full production at the originally designed rate of about 1 million tonnes annually.

GOVERNMENT SERVICES AND INCENTIVES

The provincial government has been responsive to the needs of industry in this period of strong exploration activity. Essential geoscience data is being provided at an unprecedented rate by the British Columbia Geological Survey Branch thanks to a significantly expanded operational budget and the 5-year Canada/British Columbia Mineral Development Agreement. Significant incentives and legislative changes have also been introduced to better serve industry. Highlights of these programs and incentives are:

- A record of field programs by the Geological Survey Branch, including ten 1:50 000 regional mapping projects in poorly known or underexplored areas, expanded mineral deposit mapping, Regional Geochemical Surveys, industrial minerals studies and land use studies.
- A FAME-funded $0.5 million Prospector's Assistance and Training program.

- Introduction of the new Mineral Tenure Act which combines and replaces the Mineral and Mining (Placer) Acts, streamlines the mineral tenure system, and allows for the staking of placer claims in a way similar to mineral claims.

AN OUTLOOK FOR THE FUTURE

One of the biggest challenges facing the Canadian mining industry today is to replace depleting reserves of base metals, specifically copper, zinc and lead. Since 1982, Canadian copper reserves have declined 27 per cent, zinc 24 per cent, lead 29 per cent, while gold reserves have increased 94 per cent. The situation in British Columbia is similar. Production of copper, our most valuable metal product, is expected to decline to well below half of the current annual output of 348 000 tonnes by 1998 when six or seven major mines will have closed. Zinc, once ranked second in terms of production value, is now in fourth place, and output will decline again drastically when the 80-year-old Sullivan mine closes in the next decade. Lead is even farther behind, and will follow the same trend.

The success of gold exploration over the past few years demonstrates that British Columbia is underexplored. Our province is well endowed with copper, zinc and lead, as our past and present production clearly shows. Many known porphyry copper and massive sulphide bodies, such as Windy Craggy, represent significant undeveloped copper reserves. Others can undoubtedly be found in similar environments. Significant deposits of zinc and lead, such as the Cirque, with drill-indicated reserves of 40 million tonnes grading 7.8 per cent zinc and 2.2 per cent lead, are known and await development.

British Columbia offers an attractive investment climate with exploration targets for base metals which are currently in short supply. As the search for base metals resumes worldwide, undoubtedly increased interest will also be paid to British Columbia. Likely targets will be volcanogenic massive sulphides, base metal and precious metal skarns, sedex deposits and gold-copper porphyries. In the meantime, most exploration budgets will remain geared to gold.

1989 should see the opening of up to seven new precious metal mines, namely Lawyers, Esperanza, Snip, Spud, Golden Bear, Samatosum and Silbak Premier - Big Missouri, representing a total capital investment of $220 million and the creation of about 740 new jobs. More should follow in 1990. The replacement of the Mining Exploration Depletion Allowance (MEDA) in early 1989 by the new Canadian Exploration Incentive Program (CEIP) is expected to reduce exploration expenditures in British Columbia only marginally.

ACKNOWLEDGMENTS

The articles which follow provide more detail of the mineral exploration activity in each of the five District Geologist's areas, and also report on the FAME program and the British Columbia Geological Survey's programs. Information on mineral exploration was supplied to the District Geologists, either directly or through press releases, by the many exploration companies active throughout the province. Mineral claims and exploration expenditure statistics were supplied by the Ministry's Mineral Titles Branch and by the British Columbia and Yukon Chamber of Mines.

TABLE A2
MINE DEVELOPMENT REVIEW PROCESS (MDRP) PROJECTS IN REVIEW, DECEMBER, 1988

Prospectus STAGE

PROJECT; COMPANY; DEVELOPMENT REGION	COMMODITY,PRODUCTION RATE; MINE LIFE	EMPLOYMENT CONSTRUCTION; OPERATION;COMMUNITY	DEVELOPMENT SCHEDULE (STAGE/AIP/PRODUCTION)
Catear (Goldwedge); Catear Resources Ltd.; North Coast	Au/Ag; 180 tpd for 6-10 yrs	Constr: 50 Op: 30 Campsite/Stewart	Prospectus - Nov 1988 Stage I - Spring 1989 Prod. - Mid 1989
Equinox (J+L); Equinox Resources Ltd.; Pan American Minerals Corp.; Kootenay	Au/Ag/Pb/Zn; 350 tpd for 10 yrs+	Constr: 50 man-yrs Op: 80 - 90 Revelstoke	Prospectus - Dec 1988 Stage I - Sept 1989 Prod. - Sept 1991
Laredo Limestone Quarry; Laredo; North Coast	$CaCO_3$ (Limestone); 8000 tpd for 30 yrs	Constr: 12 man-yrs Op: 50	Prospectus - Dec 1988 Stage I - Need Undetermined Prod. - Late 1989
Oliver; Valhalla Gold Group Corp. Thompson-Okanagan	Au; 300 tpd for 10 yrs	Total - 44 Oliver, Osoyoos Keremeos, Cawston Penticton	Prospectus - Aug. 1988 Stage I - Early 1989 AIP - Spring 1989 Prod. - April 1990
Quesnel River; QPX Minerals Inc.; Placer Dome Inc.; Cariboo	Au; 500 tpd for 7 yrs.	Constr: 60 Op: 70 Quesnel	Prospectus - July 1988 Stage 1 - Spring 1989 AIP - Summer 1989 Constr. - Summer 1989 Prod. - Jan 1990

STAGE I (OR EQUIVALENT)

Afton (Ajax Pit); Afton Operating Corp. (Teck); Thompson-Okanagan	Cu/Au; 27 000 stpd @ 0.46% Cu; 0.01 oz/t Au for 7 years	Existing Afton mining and milling workforce; Kamloops	Stage I - May 1988 AIP - Jan 1989 Prod. - Spring 1989
Al; Energex Minerals Ltd.; Nechako	Au; 200 tpd for 3.2 yrs	Constr: 60 (+12 Road ext.) Op: 65; Smithers, Telkwa, Houston	Stage I - Dec 1987 AIP - Early 1989 Prod. - Uncertain
Bralorne; Corona Corp.; Mainland-S.W.	Au; 300 stpd for 4 yrs (est.)	Employment not given in prospectus, Bralorne; Goldbridge, Lillooet	Stage 1 Update - Early 1989 AIP - Uncertain
Congress; Levon Resources Ltd.; Mainland-S.W.	Au/Ag; 250 stpd for 7 yrs	Op: 97 Bralorne, Goldbridge	Stage I - Sept. 1988 AIP - Spring 1989 Prod. - 1989
Esperanza; Esperanza Explorations Ltd.; Kootenay	Au; 100 stpd for 5 yrs	Constr. - 5 man-yrs Total Op: 30	Stage I - Spring 1989 AIP - Uncertain Prod. - 1990
Fording South Spoil Pile (Eagle Mtn.); Fording Coal Ltd.; Kootenay	Metallurgical and thermal coal/ Existing production	Existing employment; Elkford	AIP - Spring 1989 Operation - 1990
Lara; Laramide Res. Ltd;. Island-Coast	Au/Zn/Cu; 680 tpd for ? yrs	Op: 75 - 85; Ladysmith, Duncan, Dist. of N. Cowichan	Stage I - Uncertain
Line Creek Rock Drain; Crows Nest Resources Ltd.; Kootenay	Metallurgical and thermal coal/ Existing production	Existing employment; Sparwood, Elkford	AIP - Early 1989 Operation - 1989
Lumby; Quinto Mining Corp.; Thompson-Okanagan	Au/Ag; 250 stpd for 7 yrs	Op: 58; Lumby	Stage I - Uncertain

PROJECT;COMPANY; DEVELOPMENT REGION	COMMODITY;PRODUCTION RATE; MINE LIFE	EMPLOYMENT CONSTRUCTION; OPERATION; COMMUNITY	DEVELOPMENT SCHEDULE (STAGE/AIP/PRODUCTION)
Macktush Creek (High Sierra); SYMC Resources Ltd.; Island-Coast	Au/Ag/Cu; 100 stpd for 5 years	Constr: 30 Op: 22; Port Alberni	Stage I - Spring 1989 AIP - Uncertain Prod. - Uncertain
Mascot Tailings; Sumac Ventures Inc.; Thompson-Okanagan	Reprocessing of 685 000 tons of Hedley Mascot Gold tailings @ 700 stpd, 0.058 - .062 oz/st., 5 seasons	16 for 7-9 mos/yr	No development schedule presented in prospectus Stage I Imminent
O'Connor River	Gypsum; 2000 tpd	Op: 19	Stage I - Uncertain
Haines Gypsum Inc.; Nechako;	(300 000 tpy) for 38 years	Haines, Alaska (Deposit is in B.C.)	
Prosper; Tamara Resources Inc.; Island-Coast	Au; 2500-tonne bulk sample for 3 months	Op: 13; Tofino	Stage I - Uncertain
Sherwood;Casamiro Resource Corp.; Island-Coast	Au/Ag; 45 stpd for 3 yrs min	30 total; Port Alberni	AIP - Uncertain Prod. - Uncertain In Strathcona Park Property may be purchased by Province.
Silver Queen; Houston Metals Corp.; Nechako	Au/Ag; 300 stpd for 10 yrs	Constr: 30 Op: 65: Houston, Smithers, Telkwa	Stage I - Uncertain
Snip; Cominco Ltd.; Delaware Resource Corp.; North Coast	Au/Ag; 500 stpd for 7 yrs min.	Constr: 145 Op: 125; Smithers, Vancouver	Stage I Sept 1988 AIP - Spring 1989 Prod. - Late 1989
Spud; McAdam Resources Inc.; Island-Coast	Au; 90 - 185 tpd for 3 - 4 years	Constr: 15 - 20 Op: 20 - 25; Zeballos	Pilot plant - Fall 1988 Stage I/AIP - Uncertain Full Prod. - 1989
Sulphurets; Newhawk Gold Mines Ltd.; North Coast	Au/Ag; 450 tpd for 7 yrs	Op: 50 - 60; Stewart, Smithers, Terrace	Stage I - Spring 1989
Surf Inlet; Surf Inlet Mines Ltd.; North Coast	Au/Ag/Cu; 300 tpd for 3 yrs min (up to 10 yrs)	Op: 70-80; Prince Rupert	Stage I - Uncertain
Villalta; Canamin Resources Ltd.; Island-Coast	Au; 100 tpd (30 000 tpy) for 7 yrs	Op: 6; Nanaimo	Stage I - Uncertain
Willa; Northair Mines Ltd.; Kootenay	Au/Cu; 360 - 540 tpd (Up to 160 000 tpy) for 3.5 yrs min	Op: 50 - 60; Silverton, Slocan City New Denver	Stage I - Mar 1988 AIP - Uncertain Prod. - Uncertain
Windflower; Granges Exploration Ltd.; Windflower Mining Ltd.; Thompson-Okanagan	Au; 200 - 300 tpd for 2 - 3 yrs.	Constr: 20 Op: 35 - 40; Area communities	Pilot Plant - Fall 1988 Stage I/AIP - Uncertain Full Prod. - Uncertain
Windy Craggy; Geddes Resources Ltd.; Nechako	Cu/Co/Au/Ag/Zn; 1000 tpd; 20 years	Constr: 150 Op: 200; Whitehorse	Access Assessment - In progress Stage I - 1989 AIP - Uncertain Prod. - 1991
Wingdam "In situ" Leach; Gold Ridge Resources Inc.; Cariboo	Au; recover 13 000 oz/yr for 4 yrs	Total: 16; Quesnel, Barkerville	Stage I - Uncertain
Yellow Giant; TRM Engineering Ltd.; North Coast	Au/Ag; 200 tpd for 3 yrs	Op: 80; Prince Rupert	Stage I - Uncertain

STAGES II/III

PROJECT; COMPANY; DEVELOPMENT REGION	COMMODITY; PRODUCTION RATE;MINE LIFE	EMPLOYMENT CONSTRUCTION; OPERATION; COMMUNITY	DEVELOPMENT SCHEDULE (STAGE/AIP/PRODUCTION)
Bearcub; Brenda Business Development; Thompson-Okanagan	Feldspar, quartz, mica; 100,000 - 200 000 tpy for 100 yrs	Op: 25 Constr: 40; Lumby	Under Review Prod. - 1989
Cassiar (Mcdame Extension); Cassiar Mining Corp.; Nechako	Chrysotile asbestos, 1.6 Mtpy-ore 90 000 tpy - fibre 10 years	Mine: Existing workforce of 60, to 1990; 150 during 1990; 145, 1992 onwards Mill: Existing workforce of 340 Cassiar	AIP - Granted July 1988 Constr:-1988 Prod. - 1990
Cinola; City Resources Canada Ltd.; North Coast	Au/Ag; 3500-6000 tpd (1.2-2.1 Mtpy) for 9-15 yrs	Constr: 225 Op: 190; Skidegate, Masset, Port Clements	Stage II - June 1988 AIP - Spring 1989 Production - 1990
Dome Mountain; Teeshin Resources Ltd.; Nechako	Au/Ag; 310 tpd (Mill) for 2.6 yrs	Constr: 50 Op: 76; Smithers, Telkwa, Houston	Stage I - Mar 1988 AIP - Sept 1988 Prod. - 1989
Golden Bear; Golden Bear Operating Company (Chevron/Homestake); Nechako	Au/Ag; 360 tpd for 5.5 yrs min.	Constr: 80 (+ 50 for road) Op: 101; Telegraph Cr., Dease Lake, Iskut	Stage I - August 1987 AIP Mine - Oct 1987 Stage II Road - Jan 1988 AIP Road - Mar 1988 Stage II Mine - Early 1989 Prod. - Late 1989
Hedley Tailings; Candorado; Thompson-Okanagan	Au reworking of 1.7 Mt of tailings @ 4500 tpd for 2 yrs	22-26 total; Hedley, Princeton	Stage 1 - Sept 1987 AIP - Granted Feb 1988 Prod. - Fall 1988
Johnny Mt. (REG); Skyline Explorations Ltd.; North Coast	Au/Ag/180 tpd for 5 yrs	Op: 115; Terrace, Vancouver	Stage I - March 1987 AIP - Granted July 1987 Stage II - June 1988 Prod. - Fall 1988
Kutcho Creek; Esso Minerals Canada; Sumac Mines Ltd.; Nechako	Cu/Zn; Ag/4000 tpd (1.4 Mtpy) for 10 yrs min.	Constr: 400 Op: 294 (+ 26 transp. workforce); Dease Lake, Smithers	Stage II - Mar 1986 AIP - decision deferred
Lawyers; Cheni Gold Mines Ltd.; Northeast	Au/Ag; 500 tpd (175 000 tpy) for 5 yrs min.	Constr: 140 Op: 138; Smithers, Telkwa	Stage I - March 1986 AIP - Granted Aug 1986 Prod. - Fall 1988
Mount Klappan; /Gulf Canada Resources Ltd.; Nechako	Anthracite; 1.5 Mtpy for 20 yrs	Constr: 975 Op: 750; Stewart, Dease Lake Terrace, Smithers	Stage II - Apr 1987 AIP - Uncertain Prod. - Uncertain
Pacific Talc; Pacifc Talc Ltd.; Mainland-S.W.	Talc; 1000 tpd for 3 yrs min.	± 75 total, including offsite plant; Boston Bar	MDRP waived Prod. - Spring 1989
Sage Creek Coal;/ Sage Creek Coal Ltd.; Kootenay	Thermal coal; 2.4 Mtpy clean coal for 21 yrs.	400; Fernie	AIP - Granted 1983 Prod. - deferred Under IJC review
Samatosum; Minnova Inc.; Thompson-Okanagan	Ag/Au; 420 stpd for 6 yrs	Constr: 180 Peak Op: 96; Barriere, Kamloops	Stage I - May 1988 AIP - Granted Nov. 1988 Prod. - Mid 1989
Silbak Premier/Big Missouri; Westmin Resources Ltd.	Au/Ag; 2000 tpd (730 000 tpy) for 11 yrs	Op: 157; Stewart	Stage I - March 1987 AIP - Granted July 1987 Stage II - May 1988 Prod. - Spring 1989

(INFORMATION SOURCE: Engineering and Inspection Branch - 12/06/88)

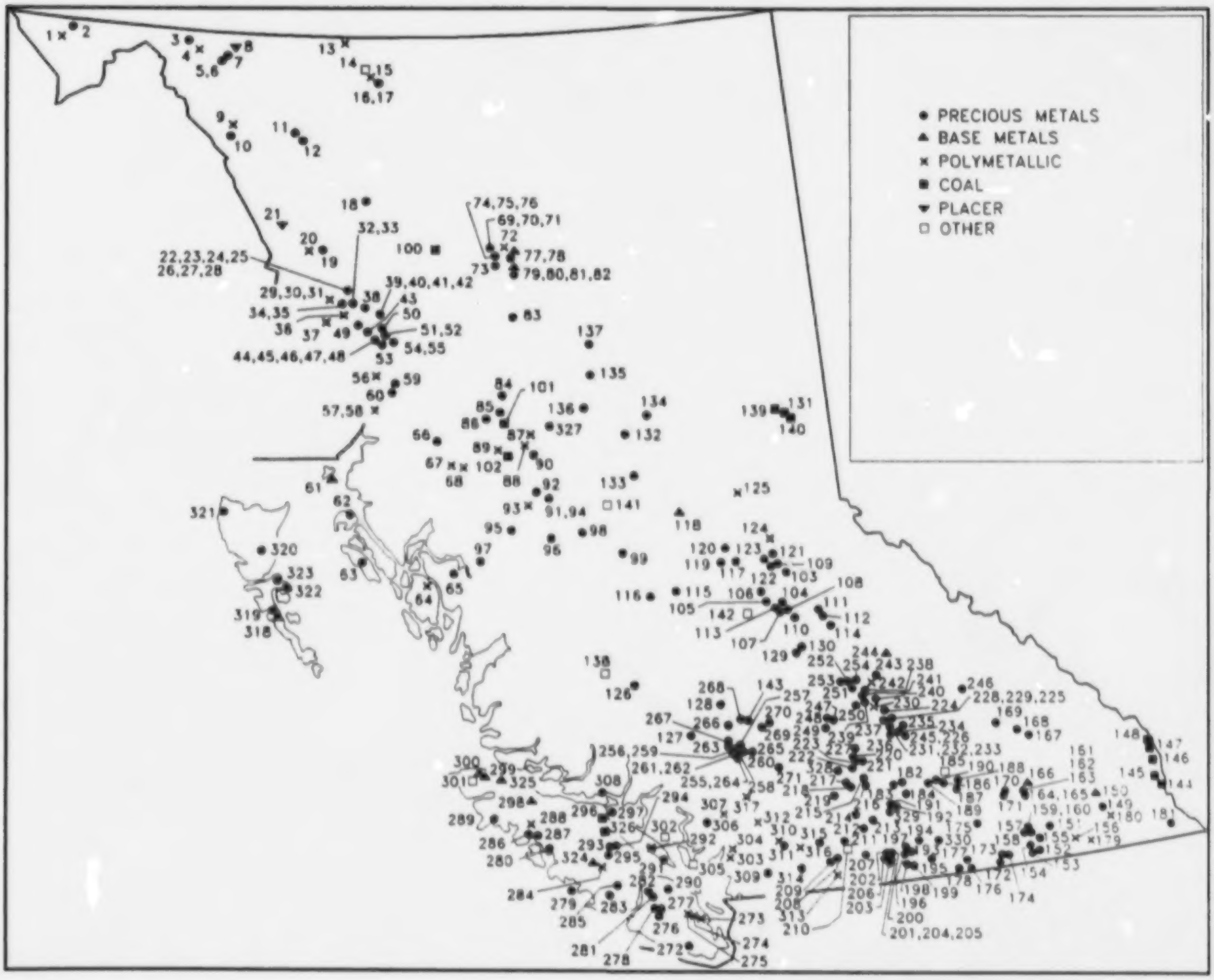
● PRECIOUS METALS
▲ BASE METALS
× POLYMETALLIC
■ COAL
▼ PLACER
□ OTHER

Figure A1. Location of Active Properties in British Columbia during 1989. Numbers are keyed to Table A3 and text.

TABLE A3
ACTIVE PROPERTIES IN B.C., 1988

MAP NO.	PROPERTY/MINFILE NAME (OWNER/OPERATOR)	MINFILE NO.	MINING DIVISION	NTS	COMMODITY	DEPOSIT TYPE	WORK DONE; REMARKS
NORTHWESTERN DISTRICT							
1	Windy Craggy (Geddes Resources)	114P002	Atlin	114P/12E	Cu, Co, Au	Volcanogenic massive sulphide	1474 m u/g drifting; bulk sample; 17 370 m u/g ddh
2	Squaw Creek (C. Little/ Arbor Resources)		Atlin	114P/4E	Au	Shear	6 ddh, 610 m; geol mapping
3	Mill (United Keno Hill Mines)		Atlin	104M/15	Au		5 ddh, 458 m; geophys
4	Moon Lake (Noranda Exploration)	104M057	Atlin	104M/15	Au, Zn, Pb	Shear	3 ddh, 500 m; soil and rock geochem; geophys
5	Pictou (S. Connolly/ Homestake Mineral Development)	104N044	Atlin	104N/12	Au, Ag	Vein	2 ddh, 200 m
6	Heart of Gold (Canova Resources/ Homestake Mineral Development)		Atlin	104N/12	Au	Mesothermal vein	5 ddh, 600 m; airborne & ground geophys; mapping; sampling
7	Yellowjacket (Canova Resources/ Homestake Mineral Development)	104N043	Atlin	104N/12E	Au	Mesothermal vein	23 ddh, 3250 m
8	Pine Creek Placer (Queenstake Resources)	104N030	Atlin	104N/12E	Au	Placer	760 000 m^3 gravel moved; 300 000 m^3 sluiced; 25 rcdh
9	Tulsequah (Redfern Resources/ Cominco)	104K002	Atlin	104K/12	Ag, Au, Pb, Zn, Cu	Volcanogenic massive sulphide	13 ddh, 3660 m; 887 m of u/g rehabilitation
10	Polaris Taku (Rembrandt Gold Mines/ Suntac Minerals)	104K003	Atlin	104K/12E	Au, Ag, Cu, Sb	Vein	8 ddh, 1067 m; underground rehabilitation; soil geochem
11	Golden Bear (Chevron Canada Resources/ Golden Bear Operating Company)	104K079	Atlin	104K/1	Au	Replacement	Access road; plant foundations; permanent camp; drilling
12	Bandit-Hijack (Chevron Canada Resources/ Dia Met Minerals)		Atlin	104K/1W	Au		2 ddh, 700 m; bulk sampling
13	Albert Creek (Total Energold)		Liard	104P/16	Ag, Zn, Ba	Fracture, replacement?	3 ddh, 798 m
14	McDame (Cassiar Mining)	104P084	Liard	104P/5E	Asbestos	Ultramafic	1325 m slashing in two adits, 225 m decline, pipeline

MAP NO.	PROPERTY/MINFILE NAME (OWNER/OPERATOR)	MINFILE NO.	MINING DIVISION	NTS	COMMODITY	DEPOSIT TYPE	WORK DONE; REMARKS
15	Hopeful (Sable Resources/ Taurus Resources)	104P010	Liard	104P/5	Au, Ag, Cu, Zn	Mesothermal vein	9 ddh, 740 m; 3600 t bulk sample
16	Erickson Gold (Total Energold/ Erickson Gold Mine)	104P029	Liard	104P/4E	Au	Mesothermal vein	12 196 m surface and 2029 m u/g ddh, VLF, IP, mag; trenches
17	Cusac (Total Energold/ Erickson Gold Mine)	104P070	Liard	104P/4E	Au	Mesothermal vein	5 790 m surface & 10 786 m u/g ddh, started adit
18	Castle (Teck Explorations)	104G076	Liard	104G/16	Au, Ag	Pyritic shear?	11 ddh, 1200 m; trenching geochem;
19	Bee Jay (Teck Explorations)		Liard	104G/2	Au, Ag	Vein	9 ddh, 1350 m
20	Trophy Gold (Continental Gold/ United Mineral Services)	104G053	Liard	104G/3	Au, Ag, Zn, Pb, Cu	Breccia, skarn	16 ddh, 2820 m trenching; prospecting; mapping; sampling
21	Barrington River Placer (Integrated Resources)	104G008	Liard	104G/12W	Au	Placer	bulk sample; gravity and mag
22	McLymont Creek (Gulf International Minerals)	104B281	Liard	104B/15	Au, Cu, Ag	Replacement	37 ddh, 4707 m; geol mapping; geochem
23	Ver, Joy (Ticker Tape Resources/ Orequest Consultants)		Liard	104B/15	Ag, Au	Vein	2 ddh, 260 m; rock and soil geochem; mapping
24	Ice, New (Ticker Tape) (Ticker Tape Resources/ Orequest Consultants)		Liard	104B/15	Au, Ag, Pb, Zn	Vein replacement	9 ddh, 976 m; mapping; rock and soil sampling
25	Gab 11, 12, Mon 1&2, Wei, Zel, Stu (Consolidated Sea Gold/ Pamicon Developments Ltd.)		Liard	104B/11E	Au		ddh, 610 m; prospecting; geochem
26	Gab 7, 8, 10 (Pezgold/ Pamicon Development Ltd.)		Liard	104B/10	Au		ddh, 824 m; geochem; trenching
27	Brenwest (Brenwest Mining/ Hi-Tech Resource Management)	104B210	Liard	104B/10	Au, Ag	Shear	4 ddh, 302 m; prospecting; geochem
28	Gab 9 (Jazzman Resources/ Pamicon Developments Ltd.)		Liard	104B	Au		ddh, 854 m
29	Rob 13 & 14 (Crest Resources, Magenta Development/ Pamicon Developments)	104B005	Liard	104B/10W	Pb, Cu,		ddh, 914m
30	Iskut (American Ore, Golden Band Resources/ Keewatin Engineering)		Liard	104B/11	Au		10 ddh; soil & silt geochem; airborne EM, ground VLF & mag
31	Iskut River (Meridor Resources)	104B076	Liard	104B/11	Au, Cu, Mo	Porphyry?, vein?	63 ddh, 3960 m; soil geochem; geophys

MAP NO.	PROPERTY/MINFILE NAME (OWNER/OPERATOR)	MINFILE NO.	MINING DIVISION	NTS	COMMODITY	DEPOSIT TYPE	WORK DONE; REMARKS
32	Waratah (Tungco Resources)	104B204	Liard	104B/10W	Au, Ag, Cu	Mesothermal vein	26 ddh, 2513 m; trenching; mag, VLF-EM; soil geochem; mapping
33	Handel, Raven, Chopin (Pamorex Minerals, Winslow Minerals/ Keewatin Engineering)		Liard	104B/10	Au	Vein, shear	15 ddh; rock and soil geochem, trenching; airborne EM
34	Snip (Delware Resources/ Cominco Ltd.)	104B250	Liard	104B/11E	Au	Mesothermal vein	23 u/g (6828 m) & 145 surf. (11 047 m) ddh; 2433 m drifting
35	Johnny Mountain (Reg) (Skyline Explorations)	104B107	Liard	104B/11E	Au, Ag, Cu	Mesothermal vein	road building 41 ddh, 3653 m; geochem, geophys
36	Inel (Inel Resources/ Skyline Explorations)	104B113	Liard	104B/10W	Au, Ag, Cu, Pb, Zn	Vein, shear	surf. 15 ddh, 2025 m; u/g 63 ddh 6199 m; 753 m drifting
37	Zeehan (Tanker Oil and Gas)	104B267	Liard	104B/11	Au, Ag, Pb		3 ddh, trenching
38	Eskay Creek (Consolidated Stikine Silver) Calpine Resources)	104B008	Skeena	104B/9W	Au, Ag	Vein?	>13 ddh, 2438 m; soil geochem; prospecting, mapping
39	Kerr (Sulphurets Gold/ Western Canadian Mining)	104B100	Skeena	104B/8	Cu, Au	Porphyry	22 ddh, 3589 m; trenching; geol; geochem; geophys
40	Mt. Madge (Corey 8) (Catear Resources/Wydmar, Brucejack/Bighorn Development)	104B240	Skeena	104B/8W	Pb, Zn, Au, Ag	Massive sulphide and vein	6 ddh, 647 m; silt and rock geochem; mapping
41	Goldwedge (Catear Resources)	104B105	Skeena	104B/8E	Ag, Au	Vein	62 ddh, 3033 m; 287 m decline, 99m drifting
42	Sulphurets (Granduc Mines/ Newhawk Gold Mines)	104B118	Skeena	104B/8E	Ag, Au	Vein	7000 m surface & 7400 m u/g ddh; 2000 m drifting; road
43	Tennyson (Keylock Resources)	104B167	Skeena	104B/8E	Au, Ag	Vein	7 ddh, 415 m; trenching, rock geochem
44	Silver Butte (Tenajon Resources/ Esso Resources Canada)	104B150	Skeena	104B/1E	Ag, Au	Vein	u/g development, 737 m; 23 surface and 36 u/g ddh, 8502m
45	Big Missouri (Westmin Resources, Canacord Resources, Tournigan Mining Explorations)	104B046	Skeena	104B/1	Ag, Au	Vein or volcanogenic sulphide	122 ddh, 11491 m; mapping; road const.; ore stockpiling
46	Indian (Tri Gold Industries, Caltech/ Esso Resources Canada)	104B031	Skeena	104B/1	Ag, Au, Pb, Zn	Vein	ddh

MAP NO.	PROPERTY/MINFILE NAME (OWNER/OPERATOR)	MINFILE NO.	MINING DIVISION	NTS	COMMODITY	DEPOSIT TYPE	WORK DONE; REMARKS
47	High Ore - Ruby Silver (Esso Resources/ Westmin Resources)	104B090	Skeena	104B/1	Ag, Au	Vein	9 ddh, 707 m; road; geochem; geophys
48	Silbak Premier (Silbak Premier Mines, Westmin Resources, Canacord Resources)	104B054	Skeena	104B/1E	Ag, Au, Pb, Zn, Cu, Cd	Vein	ddh; u/g - 7933 m, surface 2411 m; mapping; u/g rehab.
49	Doc(Globe) (Magna Ventures, Silver Princess Resources/ Echo Bay Mines)	104B015	Skeena	104B/8	Au, Ag, Cu, Pb, Zn	Vein	32 ddh, 3050 m; 245 m of u/g development
50	Knip (Pennilane Development)	104A095	Skeena	104A/5W	Ag, Pb, Zn	Vein	4 ddh, 366 m
51	Todd Creek (Golden Nevada Resources/ Noranda Exploration Company)	104A001	Skeena	104A/4	Cu, Au	Vein	39 ddh, 4239 m; IP; rock, soil, silt, heavy mineral geochem
52	AM, Virginia K (Fest Resources/ Golden Glacier Resources)	104A006	Skeena	104A/5W	Au, Ag	Vein	6 ddh, 457 m
53	Joutel(Red Cliff) (Joutel Resources/ B. Hall)	104A037?	Skeena	104A/4	Au, Cu	Vein	4 ddh, 823 m; soil geochem
54	Dunwell Mine (Silver Princess Resources/ Duchan Enterprises)	103P052	Skeena	103P/13W	Au, Ag	Vein	10 ddh, 1372 m; u/g rehab 259 m; stope sampling
55	Glacier Creek (Morocco Explorations/ C. Dyakowski)	103P055	Skeena	103P/13W	Ag, Pb	Vein	3 ddh, 305 m
56	Georgia River (Avatar Resources)	103O013	Skeena	103O/16	Au, Ag, Pb, Zn, Cu	Vein	15 ddh, 2629 m; trenching
57	Anyox (Cominco)	103P021	Skeena	103P/5	Cu, Au, Ag	Volcanogenic massive sulphide	7 ddh, 3600 m; geol
58	Granby Point (Prospectors Airways/ Pacific Geo-Rock Exploration)	103P022	Skeena	103P/5W	Au	Silicified zones	planned 4 ddh, 610 m; mapping; trenching
59	Tidewater (Richmark Resources/ Orequest Consultants)	103P111	Skeena	103P/5	Ag, Au	Vein	ddh, 611 m
60	Kit (Cominco)	103P245	Skeena	103P/11	Ag	Shear zone	3 ddh, 600 m; soil geochem
61	Dunira Island (St. Edwards Minerals/ Orequest Consultants)	103J044	Skeena	103J/7	Cu, Au, Ag, Wo	Massive sulphide	4 ddh, 240 m
62	Porcher Island (Cathedral Gold)	103J029	Skeena	103J/2	Au	Mesothermal vein	64 ddh, 10652 m; IP; geochem; geol
63	Yellow Giant (Trader Resource/ Hillsborough Resources)	103G024	Skeena	103G/8	Au	Vein	2 ddh, 70 m bulk sample

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64	Surf Inlet (Matachewan Consolidated Mines/ Surf Inlet Mines)	103H027	Skeena	103H/2W	Au, Ag, Pb, Zn, Cu	Vein	3 ddh, 457 m; 610 m u/g rehabilitation
65	Western Copper Mines (Freemont Gold)	103H033	Skeena	103H/1	Au, Ag	Vein	10 ddh, 914 m; rock geochem
66	Kalum Lake (Terracamp Developments)	103I019	Skeena	103I/10	Au, Ag	Vein	66 m drifting; trenching
67	Thorn (Castello Resources)	103I098	Skeena	103I/8	Au, Ag, Cu, Pb, Zn,	Vein	16 ddh, 1219m
68	J.P. Group (W. McRae/F. Loutitt Univex Mining)	103I107	Omineca	103I/8E	Au, Ag, Pb, Cu	Vein	u/g rehabilitation, road; geochem; geol
69	Al (Energex Minerals)	094E091	Omineca	94E	Au	Epithermal vein	70 ddh, 6800 m; trenching
70	JD (Energex Minerals)	094E065	Omineca	94E	Au, Ag	Epithermal	trenching
71	Mets 1 and 2 (Manson Creek Resources/ Golden Rule Resources)	094E093	Omineca	94E/6	Au, Ag	Epithermal	7 ddh, 1156 m; trenching
72	Moosehorn (Cassidy) (Cyprus Metals)	094E086	Omineca	94E/6E	Ag, Au, Zn, Ba, Pb	Epithermal	13 ddh, 1219 m; IP; mag
73	Golden Stranger (Western Horizons Resources Sutton Resources, Redfern Resources/Western Horizons Resources)	094E076	Omineca	94E	Au	Epithermal	12 ddh, 1829 m; IP; geochem
74	Silver Pond (Bond Gold Canada)	094E069	Omineca	94E	Au, Ag, Cu	Epithermal	16 ddh, 3700 m; resistivity; rock, soil, stream geochem
75	Lawyers (Cheni Gold Mines)	094E066	Omineca	94E/6	Ag, Au	Epithermal vein	u/g development; permanent camp, mill; tailings pond
76	Chappelle(Baker) (Multinational Resources)	094E026	Omineca	94E/6	Au	Epithermal	24 ddh, 2272 m; IP; geochem
77	Shasta (International Shasta Resources/ Esso Resources)	094E050	Omineca	94E/2	Au, Ag	Epithermal	31 ddh, 3600 m; VLF; IP; rock and soil geochem
78	Brenda (Canasil Resources)		Omineca	94E	Pb, Zn, Cu, Ag	Epithermal vein	12 ddh, 1219 m; mag, EM, IP; soil geochem
79	Firesteel (Asitka Resources Cheni Gold Mines Skylark Resources)		Omineca	94E/2	Ag, Au, Pb, Zn	Vein	32 ddh, 1900 m; geophys; geochem
80	Thutade Lake (Pacific Ridge Resources-Hermes Ventures)	094E013	Omineca	94E/2W	Zn, Pb, Ag, Cu	Skarn	VLF-EM, mag; geochem

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81	Kemess Creek (Pacific Ridge Resources-St. Phillips Resources)		Omineca	94E/2	Au, Cu	Porphyry	11 rcdh, 870 m; IP; road; trenching
82	New Kemess (El Condor Resources/ D. Copeland)		Omineca	94E/2	Au, Cu	Porphyry	VLF, mag, IP; geochem; trenching
83	Croy (Pacific Rim Mining Corporation)	094D015	Omineca	94D/8	Ag, Au, Cu	Vein	6 ddh, 518 m
84	Knoll (Goldpac Investments)		Omineca	93M/6E	Au, Ag	Vein	10 ddh,1524 m; geophys; road
85	Max (Accura Resources-T. Richards Prospecting)	093M027	Omineca	93M/6	Ag	Mesothermal	18 ddh, 732 m; geophys; geochem
86	Rocher Deboule (Southern Gold Resources)	093M071	Omineca	93M/4E	Cu, Au, Ag	Vein	14 ddh; u/g rehabilitation 792 m, 61 m new drifting
87	Fireweed (Canadian United Minerals)		Omineca	93M/1W	Ag, Pb, Zn	Replacement?, conformable mass. sulphide	45 ddh, 8595 m; geophys
88	Cronin (Southern Gold Resources)	093L127	Omineca	93L/15W	Ag, Pb, Zn, Au, Cd, Cu	Vein	3 ddh, 457 m; geophys
89	Victory (Geostar Mining)	093L092	Omineca	93L/14W	Ag, Pb, Zn, Au, Cu	Vein	u/g development 61 m
90	Dome Mountain (Teeshin Resources, Canadian United Minerals/Total Energold)	093L022	Omineca	93L/10, 15E	Au, Ag, Pb, Zn	Vein	10 ddh, 1338.9 m; IP
91	Gaul (Equity Silver Mines/Teck)	093L256	Omineca	93L/1W	Cu, Ag	Porphyry	6 ddh
92	Bob Creek (Royalstar Resources)	093L009	Omineca	93L/7	Au, Ag, Zn	Vein	ddh in progress
93	Silver Queen (Houston Metals Corp.)	093L002	Omineca	93L/2	Ag, Au, Pb, Zn, Ga, Ge	Vein	u/g development, ddh
94	Equity Mine (Equity Silver Mines)	093L001	Omineca	93L/1W	Ag, Au, Cu	Transitional	23 ddh, 4400 m
95	Sibola (Teeshin Resources/ MPD Consultants)	093E074	Omineca	93E/11,14	Au, Ag, Zn	Porphyry	13 ddh, 711 m; geol
96	Duk 1 - 4 (S.Travis/93F/12IP; Chalice Mining)		Omineca	93E/9	Au	Epithermal	4 ddh, 366 m; rock and soil geochem
97	Smith-Nash (Consolidated Silver Standard/Fleck Resources)		Omineca	93E/05	Au, Ag, Cu	Vein	13 ddh; trenching channel sampling
98	Rhub 1-13 (Mingold Resources)		Omineca	93F/11W, 12E	Au		6 ddh, 1037 m; VLF-EM; rock and soil geochem; trenching
99	Pig (Lac Minerals)		Omineca	93F/7W	Au		2 rcdh, 110 m; rock and soil geochem
100	Klappan (Gulf Canada Resources)	104H020	Omineca	104H/6, 7, 8	Coal		29 ddh; trenching; coal quality analysis geol mapping

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101	Bulkley (A. Mullan/ Atna Resources)	093M095	Omineca	93M/3	Coal		3 ddh, 457 m
102	(Pine Creek) Telkwa Coal (Shell Canada/ Crows Nest Resources)	093L152	Omineca	093L/11E	Coal		14 ddh, 1500 m; road
CENTRAL DISTRICT							
103	Duck (Gibraltar Mines)		Cariboo	93A/11,12	Au, Ag, Pb, Zn	Replacement vein	7 ddh, 1034 m
104	Nov Group (Malcolm Resources)	93A132	Cariboo	93A/11,12	Au	Phyllite-hosted gold	3 ddh, 346 m; trenching; test pits
105	QR Placer Dome/QPX Minerals	93A040	Cariboo	93A/12	Au	Alkali-porphyry related	66 ddh, 18 980 m; environmental studies, feasibility
106	Maud (Placer Dome)	93A119	Cariboo	93A/12	Au	Alkali porphyry	12 ddh, 3660 m
107	Cariboo Bell (E&B Explorations/Imperial Metals)	93A008	Cariboo	93A/12	Au, Cu	Alkali porphyry	99 ddh, 8839 m
108	CPW (Pundata Gold)	93A061	Cariboo	93A/12E	Au	Phyllite-hosted gold	rdh and ddh, 696 m; metallurgical tests
109	Antler Creek (Rise Resources)	93A055	Cariboo	93A/14, 93H/3	Au	Vein replacement	12 rdh, 600 m; geophys
110	Kwun (Placer Dome)	93A077	Cariboo	93A/6	Au	Alkali-porphyry related	7 rdh, 730 m; road
111	Forks (Armada Gold & Minerals)		Cariboo	93A/7	Au	Phyllite-hosted gold	drilling planned; trenching
112	Tep (Armada Gold and Minerals)		Cariboo	93A/7	Au	Phyllite-hosted gold	5 ddh, 918 m
113	Jamboree (Imperial Metals)	93A149	Cariboo	93A/7	Au	Porphyry related	4 ddh, 514 m; geophys
114	Frasergold (Sirius Resources/Eureka Resources)	93A150	Cariboo	93A/7E	Au	Phyllite-hosted gold	183 m drifting pdh, 1829 m; ddh, 915 m
115	Bob (Lac Minerals)	93B054	Cariboo	93B/13E	Au, Ag	Epithermal	10 rdh, 800m
116	Oboy (Lornex Mining)		Cariboo	93C/9,16	Au	Epithermal	4 ddh, 1043 m; road; trenching
117	G South Gabriel Resources)	93G007	Cariboo	93G/1	Au	Remobilized vms	17 ddh, 1250 m; trenching; geochem; geophys
118	Cluculz Lake (Nation River Resources/Noranda)		Cariboo	93G/14W	Au	Vein, replacement?	5 ddh, 609 m; trenching; geochem; geophys
119	York (Lac Minerals)	93G048	Cariboo	93G/7	Au, Ag	Replacement vein	10 rdh, 800 m
120	Hixon Creek (Golden Rule Res/Noranda)	93G014	Cariboo	93G/7, 8	Au	Vein	5 ddh, 700 m completed, more planned
121	Eight Mile Lake (Preido Mines)	93H015	Cariboo	93H/4E	Au	Placer	drain lake; stripping and mining

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122	Cariboo Gold Quartz (Mosquito Consolidated Gold Mines)	93H006	Cariboo	93H/4E	Au	Replacement sulphide	over 1560 m drifting massive pdh and ddh
123	Mt. Tom-Whipsaw (Wells Gold)	93H023	Cariboo	93H/4E	Au	Replacement massive sulphide	11 ddh, 1937 m; trenching; geochem; geophys
124	Indian Lake (Noranda)		Cariboo	93H/6	Au	Volcanogenic massive sulphide	12 ddh, 900 m; road
125	Com (Castello Resources)	93J001	Cariboo	93J/1W	Au, Cu	Volcanogenic massive sulphide	9 ddh, 1000 m
126	Newmac (Jacqueline Gold/Mincord Expln.)	92N030	Clinton	92N/10,15	Au, Cu	Porphyry	2 ddh, 328 m; geochem; geophys
127	Pellaire (Lord River Gold Mines)	92O045	Clinton	92O/4E	Au, Ag	Epithermal vein	u/g exploration
128	Gaspard Lake (Canamax Resources)		Clinton	92O/7,10	Au	Epithermal vein	9 ddh, 900 m; trenching; geochem
129	Peewee (Peach Lake Resources)	92P108	Clinton	92P/14	Au	Porphyry related?	10 ddh, 1500 m; trenching; geochem; geophys
130	Miracle (GWR Resources)	92P002	Clinton	92P/14	Au	Vein	4 ddh, 400 m; trenching; geochem; geophys
131	Quintette (Quintette Coal)	93P019	Liard	93P/3E	Coal	Sedimentary	51 rdh, 5737 m; 16 ddh, 2345 m
132	Tas (Noranda/Black Swan Gold Mines)	93K080	Omineca	93K/16	Au	Porphyry related	20 ddh, 1220 m; trenching
133	Snowbird (Pipawa Explorations/ X-Cal Resources)	93K036	Omineca	93K/7,8	Au, Sb	Vein	100 pdh, 2500 m; trenching; geochem; geophys
134	Phil-Heidi (Mt. Milligan) (BP Resources/Lincoln Resources)	93N194	Omineca	93N/1	Au, Cu	Alkali porphyry	37 ddh, 3993 m; geophys
135	Takla Rainbow (Cathedral Gold/Imperial Metals)	93N082	Omineca	93N/11	Au	Alkali-porphyry related	39 ddh, 7625 m; trenching; geophysics
136	Indata (Eastfield Resources)	93N192	Omineca	93N/6	Au	Vein replacement	23 ddh, 2100 m; trenching; geochem
137	Vega (Canmine Development	94C021	Omineca	94C/3	Au	Epithermal/ replacement	8 ddh, 1088 m; geochem; geophys; rehabilitate adit
138	Perkins Peak (Kleena Kleene Gold/Hunter Point Ex)	93N010	Cariboo	92N/14	Au	Epithermal	u/g drifting, 167 m
KOOTENAY DISTRICT							
144	Horseshoe Ridge (Crows Nest Resources)	*	Fort Steele	82G/15W	Coal	*	13 rdh, lower seams
144	3 & 4 Seam Area (Crows Nest Resources)	*	Fort Steele	82G/15	Coal	*	10 rdh, targeting upper 3rd seam
144	Burnt Ridge Ext. (Crows Nest Resources)	*	Fort Steele	82G/15	Coal	*	10 rdh, 973 m; upper seams Mist Mt. Fm.
144	Mine Services Area (Line Creek Mine- Crows Nest Res.)	*	Fort Steele	82G/15	Coal	*	27 rdh (approx) 4100 m; production in 1989
147	Bighorn Pit (Greenhills Mine/Westar Mining)	*	Fort Steele	82J/2W	Coal	*	2 rdh, 250 m
147	Eagle Slump (Greenhills/Westar Mining)		Fort Steele	82J/2W	Coal	*	9 rdh, 530 m

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147	Geo Slump Block (Greenhills Mine/Westar Mining)	*	Fort Steele	82J/2W	Coal	*	15 rdh, 1069 m
149	Bar (Chapleau Resources)	*	Fort Steele	82G/12	Au	Alt. syenite	9 ddh, 1525 m to Oct. 20; VLF
150	Sullivan (Mark Cr.) (Cominco)	82FNE052	Fort Steele	82F/9E	Pb, Zn	Sedex	1 ddh
151	Wisconsin (Dutch Creek Res./ Strato Geol. Eng. Ltd.)	82FSE036	Nelson	82F/6&7	Au, Ag	Vein	6 ddh; rdh 200 m; rehab
152	Nugget (Gunsteel Res.)	82FSW040	Nelson	82F/3E	Au, Ag, Pb	Vein	u/g drifting; mill planned
153	Silver Dollar (J. Spencer, M. Easly/ Fairbanks Eng.)	82FSW207	Nelson	82F/3	Au, Ag	Vein	640 m ddh; mag; EM
154	Arlington (Brie Mines / South Kootenay Goldfields)	82FSW205	Nelson	82F/3	Au	Vein	12 ddh; rdh 240 m
155	Yankee-Dundee (B.G.M. Div. Energy/ Kingsvale Res.)	82FSW068	Nelson	82F/6	Au	Quartz veins	15 ddh; planned road; u/g dev VLF-EM
156	Blackcock Mine (O'Hara Resources)	82FSW076	Nelson	82F/6E	Au, Ag, Pb, Zn	Vein	244 m crosscut
157	Shaft Claims (O. Janout & Paryn/ South Pacific Gold)	*	Nelson	82F/6W	Au, Cu	Alt. diorite	6 ddh; 763m
158	Great Western Group (Lectos Dev./G. Salazar)	*	Nelson	82F/6W	Au	Alt. rhyodacite	31 ddh
159	Star (Finley Co., Ryan Expl.)	82FSW083	Nelson	82F/6W	Au, Ag	Alt. diorite	23 ddh; Additional 2835 m; IP
160	Kenville Mine (Alcona Industries)	82FSW086	Nelson	82F/6W	Au	Vein	Mill built
161	Comstock-Silver Cup (Dragoon Res./Greenstone Res.)	82FNW077	Slocan	82F/14	Ag, Pb, Zn	Vein	Crosscut; drilled to 9th Level
162	Bar (GoldPac Investments)	*	Slocan	82F/14	Pb, Zn	Sedex	1 ddh, 1770 m
163	L.H. (GoldPac Investments)	82FNW157	Slocan	82F/14W	Au, Cu	Silic. volc.	11 ddh; rdh 500 m
164 167	Willa Abbot-Wagner (Mikado Resources/Turner Energy)	82FNW071 82KNW056	Slocan Slocan	82F/14W 82K/11E	Au, Cu Ag, Pb, Zn, Au	Alkali Replacement	94 ddh, 14335 m, u/g 100 ddh, 7625 m
168	Winslow (Winslow Gold / Tri County Bldgs.)	82ENW025	Revelstoke	82K/11	Au	Quartz-calcite vein	9 ddh, 1100 m; opened 3 portals
169	Goldfinch (Windflower Mines/Granges Exp.)	82ENW076	Revelstoke	82K/13E	Au	Quartz vein	Decline, 2 levels; 1830 m ddh
170	Strebe (Esperanza Explorations)	*	Slocan	82F/13	Au	Skarn	15 ddh
171	Tillicum Mtn. (Esperanza Explorations)	82FNW234	Slocan	82F/13	Au, Ag	Quartz skarn	ddh, 9100 m (Sur & Au) stope dev; 407 kt reserves
172	Giant (Cominco)	82FSW109	Trail Creek	82F/4	Au	Porphyry	15 ddh, 1500 m; rdh 1000 m

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173	Rossland Mining Sch. (Bryndon Vent./Antelope Res.)	82ESW023	Trail Creek	82F/3E	Au	Shear	7 ddh as of Oct. 20 rdh 1600 m VLF-EM
174	Rossland Claims (Bryndon Vent./Antelope Res.)	*	Trail Creek	82F/4W	Au	Massive sulphide	28 ddh as of Oct. 20 rdh; 2000 m; 35 km geophys
176	Golden Crown (Cons. Boundary Exploration)	82ESE032	Greenwood	82E/2E	Au, Ag	Vein	12 ddh; 610 m; 604 m drifting
177	Skylark (Viscount Resources)	82ESE011	Greenwood	82E/2E	Au, Ag, Pb	Vein	680 m drifting 1680 m surface ddh; Prod. tonnes/day
178	Sylvester K (Kettle River Res./Skylark Res.)	82ESE046	Greenwood	82E/2E	Au	Massive sulphide	6 ddh
179	Star (Cominco)	82ESE089	Nelson	82F/1W	Ag, Pb, Zn	Sedex	UTEM
180	Vine (Cominco)	*	Fort Steele	82G/5M	Pb, Zn	Sedex	2 deep ddh
181	Howell, Howe (Cominco/Placer Dome)	*	Fort Steele	82G/2	Au	Alt. syenite	25 rdh, 3000 m
SOUTH-CENTRAL DISTRICT 1988							
182	Brett (Huntington Res./Corona Corp.)	82LSW110	Vernon	82L/4E	Au	Epithermal Vein	26 ddh, 34 pdh; 5737 m; 15 trenches
183	Gold Star (Brican Res./Brican Res.)		Vernon	82L/4E	Au	Epithermal Vein	15 pdh, 1810 m; geophys
184	White Elephant (Lucky 7/C Brett/Lucky 7 Expln)	82LSW042	Vernon	82L/4E	Au	Vein	5 ddh, 494 m; geochem; geophys
185	Plateau Gold (Quinto Mining)	82LSE006	Vernon	82L/7W	Au	Shear	10 ddh, 1006 m; u/g, 488 m; geochem, geophys
186	Creighton (Qpx Minerals/Minequest)		Vernon	82L/2	Au	EPI?	ddh, 607 m; geochem; geophys; trenching
187	Top (J Irwin/El Paraiso Res.)	82LSE017	Vernon	82L/2E	Au	Vein?	12ddh, 458 m; geochem; geophys
188	Pita (Mohawk Oil/Approach Res.)		Vernon	82L/1W,2E	Au	Vein?	3 ddh, 284 m
189	Kalamalka Mine (Triple Star Res./Searchlight Res.)	82LSW050	Vernon	82L/3E	Au	Vein	11 ddh, 131 m
190	Mav 1 (S. Barnick)		Vernon	82L/1W	Au	Vein	2 pdh, 30 m; 1 ddh, 12 m; 4 trenches
191	Spod (J. Stushnoff/GPX Minerals)		Vernon	82E/13E	Au	Vein	5 ddh, 273 m; geochem; geophys
192	Oka (Fairfield/Placer/Cordil'n)		Osoyoos	82E/13W	Au	Skarn	43 pdh, 5949 m; geochem; trenches
193	Vault (Cdn Nickel)	82ESW173	Osoyoos	82E/5E	Au, Ag	Epithermal vein	49 ddh, 18 315 m
194	Dusty Mac (Minnova)	82ESW078	Osoyoos	82E/5E	Au, Ag	Epithermal vein	11 ddh, 1540 m; trenching; trenches
195	Venner (Tigris Minerals)		Osoyoos	82E/6	Au	Vein?	10 ddh, 610 m; trenching; geophys
196	Golden Plug (Greenlake Res.)		Osoyoos	82E/5W	Au	Vein?	ddh, 488 m
197	Astro 1, (PDL) (QPX Minerals/Minequest Assoc.)		Osoyoos	82E/5W	Au	Vein	2 ddh, 320 m; trenching; geochem; geophys

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198	Fairview (Oliver Gold Corp.)	82ESW008	Osoyoos	82E/4E	Au, Ag	Vein	6 ddh, 598 m; u/g rehab
199	*Stemwinder (Highland Valley Res.)	82ESW007	Osoyoos	82E/4E	Au, Ag	Vein	15 ddh, 2855 m; 11 pdh, 1846 m; u/g development
200	Nickel Plate (Corona Corp.)	92HSE62	Osoyoos	92H/8E	Au	Skarn	30 ddh, 1860 m; u/g development
201	Canty (Golden North/Corona Corp.)	92HSE64	Osoyoos	92H/8E	Au	Skarn	19 ddh, 2895 m; geochem; geophys
202	Eagle's Nest (Agio Res. Corp./Corona Corp.)		Osoyoos	92H/8E	Au	Skarn?	10 ddh, 1000 m
203	Lost Horse, etc Chevron Canada)	92HSE050	Osoyoos	92H/8E	Au	Skarn?	ddh, 844 m
204	Hedley Tailings (Candorado Mines)		Osoyoos	92H/8E	Au		tailings recovery
205	Mascot tailings (Sumac Ventures)		Osoyoos	92H/8E	Au	Leach	47 auger+pdh, 340 m; (tailings)
206	Banbury (Banbury Gold Mines/ Erickson Gold Mines)	92HSE046	Similkameen	92H/8E	Au, Ag	Vein skarn	16 ddh, 1546 m, u/g drift, 148 m
207	Similko (Similco Mines)	92HSE013	Similkameen	92H/7E	Cu, Au	*Porphyry*	*ddh; trenching; geophys*
208	*Treasure Mt (Huldra Silver)		Similkameen	92H/6E	Ag	Vein	52 ddh, 2800 m; u/g development, 2135 m
209	Summit Camp (Tarbo/Unicron/Harrisburg Dayton Res. Corp.)	92HSW023	Similkameen	92H/6E	Au, Ag	Vein?	12 ddh, 1219 m, trenching; geochem; geophys
210	Grasshopper (L Allen/Longreach Res.)		Similkameen	92H/10W	PGE	Magmatic segregation	15 pdh, 853 m
211	Rambler (Goldwest Res./Bordeaux Res.)		Similkameen	92H/10W	Au?		5 ddh, 279 m; trenching; geochem
212	Man (D Mehner/Brican Res.)		Similkameen	92H/9W	Au?		6 ddh, 915 m; geochem
213	Elk (Fairfield/Placer/Cordil'n)		Similkameen	92H/16W	Au	Skarn	11 trenches; geochem
214	Snowflake (Quilchena Res./Gerle Gold)	92HNE145	Nicola	92H/15E	Au	Vein breccia	3 ddh, 305 m
215	Stump Lake (Celebrity/Minnova)		Nicola	92I/8W	Au	Vein	8 ddh, 1150 m; geophys
216	Anderson Project	92ISE166	Nicola	92I/8W	Au	Vein	5 ddh (proposed)
217	Lucky Mike (W Petrie/Corona Corp.)		Nicola	92I/7	Au	skarn	13 ddh, 762 m; trenching; geochem; geophys
218	HK (H Kruse/H Kruse)		Nicola	92I/2	Au	Skarn?	5 ddh, 244 m; geochem; geophys
219	Betty Lou (Better Res./J Bristow)		Nicola	92I/2	Au		1 ddh, 289 m; geophys
220	Crescent (Afton Operating)	92INE026, 30	Kamloops	92I/9W	Cu, Au	Porphyry	23 ddh, 1968 m; pit development
221	Sunny (Afton Operating/Teck Expl'n.)		Kamloops	92I/9W	Cu, Au	Porphyry	2 pdh, 213 m
222	M & R (Afton)		Kamloops	92I/10E	Cu, Au	Porphyry	3 pdh, 233 m

MAP NO.	PROPERTY/MINFILE NAME (OWNER/OPERATOR)	MINFILE NO.	MINING DIVISION	NTS	COMMODITY	DEPOSIT TYPE	WORK DONE; REMARKS
223	Galaxy (Abermin)	92INE007	Kamloops	92I/9W	Au, Cu	Porphyry	13 ddh, 1944 m
224	OK (Algo Resources/Minnova)		Kamloops	82M/4W	Au, Ag, Zn	Volcanogenic massive sulphides	10 ddh, 801 m; trenching; geochem
225	Adam 8 (Adams Expln)		Kamloops	82M/4E	Au, Ag, Zn	Volcanogenic massive sulphides	5 ddh, 411 m; geophys
226	Silver King & Queen (F. Hall/C. Lowry)		Kamloops	82L/14W	Au, Ag?	Vein	6 xdh, 77 m; 5 trenches
227	Mara (QPX Minerals/Minequest)		Kamloops	92I/9,16	Au	Epithermal vein	4 pdh, 366 m; geochem; geophys
228	Samatosum Gold Corp. (Minnova/Rea)	82M244	Kamloops	82M/4W	Ag	Massive sulphides	32 ddh, 5652 m; pit development
229	Rea Discovery (Rea Gold Corp.)	82M191	Kamloops	82M/4E	Au, Zn, Cu	Massive sulphides	ddh, u/g development
230	Bar/Chu Chua (Minnova)	82M062	Kamloops	82M/4W, 5W	Au, Ag, Zn, Pb	Massive sulphides	22 ddh, 2450 m; geophys; geochem
231	Twin (Esso Res.)	82M020	Kamloops	82M/4W	Au, Ag	Massive sulphides	8 ddh, 1272 m; geochem; geophys
232	Kamad/Homestake (Kamad/Esso/Esso Res.)	82M025	Kamloops	84M/4W	Au, Ag, Ba	Massive sulphides	17 ddh, 2113 m; 1 trench; geochem; geophys
233	Bay (Cominco/Falconbridge)	82M053	Kamloops	82M/4E	Au, Ag	Massive sulphides	15 trenches; geochem; geophys
234	Lucky Coon Adams Expln./Sirius Res.	82M012	Kamloops	82M/4E	Au, Ag Zn, Cu	Volcanogenic massive sulphides	22 ddh, 2003 m; geophys
235	Adam, Wad (Adams Expl./Spencer Eng.)	82M193, 212	Kamloops	82M/4E	Au, Ag	Massive sulphides skarn	11 ddh, 1162 m; geochem; geochem
236	Steep (Natural Res. Expln./ Discovery Consultants)		Kamloops	82M/2W	Au, Ag	Massive sulphides	5 ddh, 1050 m
237	Cana (Shamrock Res./Esso Res.)		Kamloops	82M/4W	Au, Ag	Massive sulphides	4 ddh, 480 m
238	White Rock (National Res. Expln./ Discovery Mines	82M066	Kamloops	82M/5W	Au, Ag	Massive sulphides	8 ddh, 1557 m
239	CM (BP Minerals/Bp Res. Canada)		Kamloops	92P/8E	Au	Massive sulphides?	17 ddh, 1900 m; 8 trenches; geochem
240	Gold Hill (Minnova)	92P041	Kamloops	92P/8E	Au	Vein	6 ddh, 1050 m
241	Windpass (Kamad Silver/Kerr Addison)	92P039	Kamloops	92P/8	Au, Ag	Vein	12 ddh, 2328 m; 13 trenches; geochem; geophys
242	Foghorn Mt (Gold Spring Res./Gold Spring Res.)	82M029	Kamloops	82M/12W	Au, Ag,	Massive Pb, Zn breccia	14 ddh, 1500 m; geochem sulphides
243	Nobel (Placer Dome)		Kamloops	82M/12	Au, Ag, Zn	Volcanogenic massive sulphides	4 ddh, 953 m; geophys
244	CK (Rea Gold Corp)	82M137	Kamloops	82M/13E	Pb, Zn	Sedex	24 ddh, 3754.5 m, trenching; geophys; geochem
245	Scotch (Brican Res.)		Kamloops	82L/13,14	Au	VMS?	6 ddh, 1220 m

MAP NO.	PROPERTY/MINFILE NAME (OWNER/OPERATOR)	MINFILE NO.	MINING DIVISION	NTS	COMMODITY	DEPOSIT TYPE	WORK DONE; REMARKS
246	J & L (Pan American/Equinox Res.)	82M003	Revelstoke	82M/8E	Au, Ag, Zn, Pb	Sedex	u/g 160 m, raise, 183 m, drift
247	Epi, Yard, Gnome (M Dickens/Cdn. Nickel)		Clinton	92P/2W	Au		3 ddh, 880 m
248	Vidette (Tugold Res./Booker Gold Expln.)	92P85, 86, 87	Clinton	92P/2W	Au, Ag	Vein	5 ddh, 457 m; geophys
249	Eastmo (C Boitard)		Clinton	92P/2W	Au	Vein?	2 ddh, 500 m?
250	750M (G.Ellerbeck/Titan Res.)		Kamloops	92P/8E	Au?	Vein?	4 ddh, 232 m
251	Haida Gold (Electrum Res./Vital Pacific Res.)		Kamloops	92P/9W	Au		16 ddh, 1920 m; geophys
252	Ta Hoola (SNOC/Rat Res.)		Kamloops	92P/9	Au		4 ddh, 600 m; geochem
253	Bogg (G Rayner&Assoc/Geotech Cap.)		Kamloops	92P/9,10	Au?	Vein?	6 ddh, 914 m; geochem
254	HC (BP Res. Cda./Lancer Res.)		Kamloops	92P/9	Au	Vein	8 ddh, 711 m
255	Bralorne (Canada Trust/Corona Corp.)	92JNE01, 2, 7	Lillooet	92J/15W	Au	Vein	60 ddh, 9924 m (approx), surface + underground
256	Congress (Levon Res.)	92JNE029	Lillooet	92J/15W	Au	Vein	38 ddh, 2793 m; drift + raise, 1537 m
257	Minto (Avino Mines and Res.)	92JNE075	Lillooet	92J/15W	Au	Vein	9 ddh, 793 m; trenching; geochem
258	Olympic (D Ingram/Avino Mines and Res.)	92JNE092	Lillooet	92J/15W	Au	Vein	6 ddh, 830 m; 6 trenches; geochem
259	Golden Sidewalk (Manhattan Mineral Corp.)		Lillooet	92J/15E,W	Au	Vein	12 ddh, 1676 m
260	LJ (Hoyle Res.)		Lillooet	92J/15E	Au	Vein	5 ddh, 455 m
261	Reliance (C Boitard/Menika Mining)	92JNE33	Lillooet	92J/15W	Au	Vein	21 ddh, 3350 m
262	Wayside (Chevron Minerals)	92JNE030	Lillooet	92J/15W	Au	Vein	13 ddh, 2084 m; 10 trenches; geochem; geophys
263	Gun Creek (Mt Allard Res./Hi-Tec Res.)		Lillooet	92J/15W	Au	Vein?	3 ddh, 194 m
264	Love Oil (Cosmo/Levon Res.)		Lillooet	92J/15W	Au	Vein	Drift, 193 m; 31 trenches,-750 m; geochem; geophys
265	Bristol Gold (Westmin Res.)		Lillooet	92J/15E	Au	Vein?	17 ddh, 2500 m; 4 trenches, geochem
266	Relay Creek (Esso Res. Cda.)		Lillooet	92O/2	Au	Vein?	8 ddh, 1079 m
267	Eva (Abermin Corp./Millennium Res.)		Lillooet	92O/2W	Au	Vein	1 ddh, 387 m
268	Bobcat (Lexington Res.)		Clinton	92O/7E	Au, Ag	Epithermal vein	12 ddh, 2006 m; trenching, geochem
269	Stirrup, Watson (Chevron Mineral)		Clinton	92O/1E	Au		2 ddh, 427 m; 6 trenches, geochem; geophys
270	Edge (Brenwest Mining/Hi-Tec Res. Mgmt.)		Clinton	92O/1	Au?		11 ddh, 1524 m, 22 trenches, geochem
271	Spray, Foam (Kerr Addison)		Lillooet	92I/12W	Au	Vein	5 ddh, 760 m

MAP NO.	PROPERTY/MINFILE NAME (OWNER/OPERATOR)	MINFILE NO.	MINING DIVISION	NTS	COMMODITY	DEPOSIT TYPE	WORK DONE; REMARKS
SOUTHWESTERN DISTRICT							
272	Valentine Mountain/Blaze (Beau Pre Explorations/ Valentine Gold)	092B108	Victoria	92B/12W	Au, Ag	Veins	19 ddh, 2977 m; 20 tpd test mill processed 590 t; geophys
273	Mount Sicker/Lenora, Tyee, Copper Canyon (Minnova)	092B001, 2, 4, 86, 89 and 99	Victoria	92B/13E, 13W	Au, Ag, Cu, Zn, Pb	Massive sulphides	33 ddh, 11 059 m; mapping
274	Lara/Coronation, Hope (Laramide Resources/ Abermin)	092B110	Victoria	92B/13W	Au, Ag, Zn, Cu, Pb	Massive sulphides	Approx. 600 m u/g development; 10 000 tonne bulk sample stockpiled; 3 ddh, 268 m
275	Chemainus/Anita, Pauper (Esso Minerals/ Falconbridge)	092B037, 040	Victoria	92B/13W 92C/16E	Au, Ag, Zn, Cu, Pb	Massive sulphides	39 ddh, 11 823 m; mapping; geophys; trenching
276	Mount Vernon/Avallin (Nuspar Resources)	092C037	Victoria	92C/15E 92C/16W	Au, Cu	Siliceous, stockwork, skarns	12 ddh; 6 rdh
277	Heather (International Cherokee/ Minnova)	092C127	Victoria	92C/16W	Cu, Au	shear zone, veins	7 ddh, 542 m
278	Snapper (Ruza Resources/Saga Resources)		Victoria	92F/2E	Au, Ag	Veins	5 ddh, 541 m
279	Contact/Ormond (Parallax Development Au Resources)	092E012, 033, 034	Alberni	92E/8E	Au, Ag, Pb, Zn	Veins, skarn	18 ddh, 1640 m; geochem; geophys
280	Head Bay/Road (Centaur Resources)	092E063	Alberni	92E/15E	Au, Cu, Ag	Veins	Approx. 300 m drilling; prospecting; geochem
281	Thistle (Nexus Resource Corp., Angle Resources/Nexus)	092F083	Alberni	92F/2E	Au, Ag, Cu	Massive sulphides	7 ddh, 1205 m
282	Debbie, Yellow/Regina, Victoria (Westmin Resources, Nexus Resource Corp.)	092F078, 079	Alberni	92F/2E 92F/7E	Au,Ag, Cu	Altered shear zone auriferous chert quartz vein stockwork	u/g exploration, 2020 m tunnel in progress; surface ddh; mapping
283	Bear/Bear, Ironsides, Olympic (International Coast Minerals /INP Expl. & Development)	092F044, 045, 046	Alberni	92F/3W	Au,Ag, Cu	Tertiary mesothermal veins	ddh; geophys; trenching
284	Buttle Lake (Cream Silver Mines)		Alberni	92F/5E, 12E	Au, Ag, Pb, Zn, Cu	Massive sulphides	4 ddh, 2163 m
285	Tay (Dalmation Resources)		Alberni	92F/6W	Au	Veins, siliceous breccias	ddh; geophys; geochem
286	New Privateer/Privateer (New Privateer Mines)	092L008	Alberni	92L/2W	Au, Ag	Tertiary mesothermal veins	Bulk sampling; mill construction
287	Spud Valley/Goldfield (McAdam Resources)	092L211	Alberni	92L/2W	Au, Ag	Tertiary mesothermal veins	u/g drifting underground ddh, 5400 m

MAP NO.	PROPERTY/MINFILE NAME (OWNER/OPERATOR)	MINFILE NO.	MINING DIVISION	NTS	COMMODITY	DEPOSIT TYPE	WORK DONE; REMARKS
288	Hiller-Churchill (Falconbridge/Footwall Explorations)	092L031, 127, 154	Alberni	92L/2W	Au, Ag, Cu, Magnetite	Skarn	Drifting & raising; sampling; mapping
289	Iron Cop (Defiant Minerals)	092L228	Alberni/ Nanaimo	92L/5E	Au, Ag, Cu	Veins	3 ddh, 244 m; mapping; geophys; geochem
290	Songbird/Okay (Expeditor Resource Group/ Mingold Resources)	092F055	Nanaimo	92F/1E	Au, Ag	Veins	rcdh; geophys; geochem; trenching
291	Aladdin/Venus, St.Joseph, Juneau, Old Bill (H.Q. Minerals, Dornoch Int.)	092F131, 132, 134	Nanaimo	092F/8W, 9W	Au, Cu, Ag	Veins in shear zones	6 ddh, 427 m; geophys; geochem
292	Vananda Gold/Little Billie, Cornell, Copper Queen, Texada Iron (Vananda Gold, Freeport-McMoRan Gold)	092F105, 106, 107, 112, 257, 259	Nanaimo	92F/10E, 15E	Au, Ag, Cu, Zn Magnetite	Skarn	7 ddh, 2390 m mapping; airborne & ground geophys; trenching;
293	Mount Washington/ Domineer, Lakeview (Better Resources)	092F116, 117, 330	Nanaimo	92F/11E,11W 92F/14E,14W	Au, Ag, Cu	Epithermal veins, breccias	67 ddh, 5392 m; trenching; geochem
294	Murex (Better Resources/ Noranda Exploration)	092F206	Nanaimo	92F/11E,11W 92F/14E,14W	Au, Ag, Cu	Mineralized breccia	9 ddh, approx. 800 m; mapping geochem; geophys
295	Forbidden Plateau/ JoAnne, Elnora (Iron River Resources/ Noranda Exploration)	092F309, 329	Nanaimo	92F/11W, 14W	Ag, Cu, Au, Pb	Epithermal veins, breccias	8 ddh, approx. 900 m
296	McIvor Lake (Canadian Occidental Petroleum)	092K138	Nanaimo	92F/14W 92K/3W	Coal	Sedimentary	8 rcdh
297	Quadra/Contact (Nation River Resources/ Lone Jack Resources)	092K085	Nanaimo	92K/3E, 3W	Au, Ag, Cu	Skarns	8 ddh, 386 m; trenching
298	Andy, Joe/Smith Copper (West-Mar Resources/ Hercules Ventures)	092L037, 208	Nanaimo	92L/7W	Cu, Pb, Zn, Ag, Au	Skarn	5 ddh; geophys; geochem; trenching
299	Expo/Hep, Expo (BHP-Utah Mines/ Moraga Resources)	092L078, 240	Nanaimo	92L/12W	Cu, Mo, Au	Porphyry copper-gold	ddh; geophys; geochem; trenching
300	Red Dog (Crew Natural Resources)	092L200	Nanaimo	92L/12W	Cu, Au, Mo	Porphyry copper-gold	4 ddh
301	Realgar (Lone Trail Prospecting/ Formosa Resources)		Nanaimo	102I/9E	As, Cu, Hg	Skarn, epithermal veins	4 ddh, approx. 245 m; geochem; geophys
302	Lang Bay (Fargo Resources, Brenda Mines)	092F137	Vancouver	92F/16W	Kaolin, Ge, Ga	Residual, sedimentary	ddh; product beneficiation tests; airborne and ground geophys
303	Fleck-Britannia/ Victoria, Bank of Vancouver, (Minnova)	092GNW003 004,	Vancouver	92G/10W, 11E	Cu, Zn, Pb, Ag, Au	Volcanogenic massive sulphides	11 ddh, 1446 m; geophys; geochem mapping
304	International Maggie/ Indian River Copper, ABC, War Eagle	092GNW024, 028, 042,	Vancouver	92G/10W, 11E	Cu, Zn, Pb, Au, Ag	Volcanogenic massive sulphides	5 ddh, 1823 m; mapping

MAP NO.	PROPERTY/MINFILE NAME (OWNER/OPERATOR)	MINFILE NO.	MINING DIVISION	NTS	COMMODITY	DEPOSIT TYPE	WORK DONE; REMARKS
305	Sechelt Wollastonite/ Snake Bay, Wormy Lake (Tri-Sil Minerals/ Canamin Res., Lone Jack Resources)	092GNW052, 053	Vancouver	92G/12W	Wollastonite	Skarn	16 ddh, 1087 m; trenching
306	Ashlu Mine/Ashloo (Tenquille Resources/ Valentine Gold)	092GNW013	Vancouver	92G/14W	Au, Ag, Cu	Vein	9 short u/g ddh; prospecting; geophys
307	Northair/Warman (Northair Mines/ Falconbridge)	092JWO12	Vancouver	92J/3E	Au, Ag, Cu, Pb, Zn	Vein, massive	5 ddh, 1635 m; surface & u/g mapping; geophys
308	White Pine (Rea Gold, Verdstone Gold)	092K036	Vancouver	92K/6W	Au, Ag	Veins	5 ddh, 253 m
309	Sky/Spanar (Skyrocket Exploration)	092GSE019	New Westminster	92G/8W	Au, Ag	Vein	1 ddh, approx. 100 m
310	Toil/Brem (Diamond Resources/ LMX Resources)	092GNE024	New Westminster	92G/9E	Cu, Pb, Zn	Disseminated volcanogenic sulphides	3 ddh, approx. 400 m
311	Doctor's Point/Nagy (Rhyolite Resources/ Universal Trident Industries)	092HNW071	New Westminster	92G/9E 92H/12W	Au, Ag	Epithermal veins	16 ddh, 1535 m; mapping sampling; geophys; geochem; trenching
312	Easy & Jo/Mayflower (Hillside Energy, Symes Resources, Corona)	092GNE010	New Westminster	92G/16W	Au, Ag, Pb, Zn	Mineralized volcanic breccia	ddh; geochem; mapping; prospecting
313	Giant Copper/AM (Bethlehem Resources)	092HSW001	New Westminster	92H/3E	Cu, Au, Ag, Mo	Breccia pipe	u/g & surface ddh
314	Abo (Harrison Lake)/GEO, RN (Bema Int. Resources, Abo Resource Corp., Kerr Addison Mines)	092HSW092	New Westminster	92H/5E, 5W	Au	Vein stockwork	u/g & surface ddh; mapping; geophys; geochem
315	Gilt Creek/Gold Cord (New Lintex Minerals)	092HNW031	New Westminster	92H/11W	Au	Mineralized felsic dykes	ddh; geophys; geochem
316	North Fork (Minnova)	092HNW070	New Westminster	92H/12W	Cu, Zn, Ag	Massive sulphides	3 ddh, 743 m;
317	Lill/Eagle, Lake, Boulder (Green Lake Resources)	092JSE008 009, 010	Lillooet	92J/7E	Cu, Zn, Ag, Au	Massive sulphides skarns	Approx. 13 ddh, 2000 m; geophys; geochem; trenching
318	Eagle, Raven/Last Chance, Swede (Diamond Resources)	103B003, 009	Skeena	103B/12W	Cu, Ag, Au	Shear zones	3 ddh, approx. 300 m
319	Lockport/Locke (Foundation Resources Skygold Resources	103B066	Skeena	103B/12W	Au	Epithermal alteration zone	9 ddh, 225 m
320	Cinola (City Resources Canada)	103F034	Skeena	103F/9E	Au, Ag	Epithermal; veins; breccia	52 ddh, 4073 m; metallurgical testing; feasibility study; geophys
321	Inconspicuous Radcliffe Resources/ City Resources (Canada))	103F043 044	Skeena	103G/4E, 15W	Au	Altered shear zones	6 ddh, 440 m
322	More/Bella,Marino Cominco	103G008, 028	Skeena	103G/4E	Au, Sb	Epithermal veins	34 pdh
323	Snow/Baxter Creek (Mondavi Resources)	103G005	Skeena	103G/4W	Au, Ag	Epithermal veins	6 ddh

NORTHWESTERN DISTRICT

By D.V. Lefebure and M.L. Malott
District Geology, Smithers

INTRODUCTION

Exploration activity continued at near record levels in northwestern British Columbia with expenditures in excess of $85 million. The number of Notices of Work declined 10 per cent from 1987 to a total of 288. Strong metal prices, readily available risk capital and exciting new finds were the principal reasons for the continuing boom in exploration and mine development.

The Stewart - Iskut River gold belt was the busiest exploration area in the district, with expenditures exceeding $43 million on more than 55 properties, including 29 major projects. British Columbia's new producer in 1988, the Reg (Johnny Mountain) (35) gold mine, is located in this area. The Silbak Premier - Big Missouri and Snip (34) precious metal deposits are also being developed for production in 1989.

Two other gold deposits, Lawyers (75) in the Toodoggone area and Golden Bear (71) northwest of Telegraph Creek, are being developed for production in 1989. In Cassiar the McDame asbestos deposit is expected to be ready to replace the Cassiar open-pit production in 1990. A total of $97 million was spent on seven development projects in northwestern British Columbia.

Coal exploration consisted of four programs on known deposits including Mount Klappan and Telkwa. Placer mining continued at virtually the same levels as in previous years. New operations started in the Omineca and Skeena Mining Divisions roughly equaled the 20 per cent reduction in Notices of Work filed from the Liard Mining Division.

Equity Silver, Bell, Reg, Taurus and Erickson Gold were the five operating metal mines and Cassiar Mining Corporation continued to produce asbestos from its open-pit. Both Total Energold Corporation and Taurus Resources Ltd. shut down their mills in December pending development of new ore zones.

HIGHLIGHTS

- Extensive drilling and initial underground drifting completed through copper-cobalt-gold mineralization in the Windy Craggy deposit.
- Exploration for Motherlode-style gold deposits with associated listwanite alteration in the Atlin terrane.
- Encouraging drill intersections of gold-silver-copper-lead-zinc massive sulphides from the Tulsequah property could lead to reopening of the old Tulsequah Chief mine.
- The 140-kilometre access road reached the Golden Bear deposit and on-site construction began for mine start-up in late 1989.
- Development work started toward underground production from the McDame asbestos deposit by 1990.
- Reg (Johnny Mountain) gold mine in the Iskut River area began production in August.
- Development started on the adjacent Snip gold deposit with a target production date of late 1989.
- The Stewart - Iskut River gold belt was the busiest exploration area in British Columbia with more than fifty companies spending a total of over $43 million.
- Exploration in the Iskut River map area over the last three years has more than doubled the number of known occurrences.
- Regional Geochemical Survey release of stream sediment samples for Iskut River, Telegraph Creek, Sumdum and Tulsequah sheets produced a staking rush and provides much needed data in this area of high mineral potential.
- Silbak Premier and Big Missouri deposits in the Stewart mining camp being prepared for production in April, 1989.
- Lawyers property in the Toodoggone scheduled to go into production early in 1989.
- An intense exploration program was completed on the Fireweed silver-lead-zinc mineralized zones west of Babine Lake.
- Reserves the Silver Queen mine increased to more than 1.5 million tonnes containing silver, gold and zinc.

TRENDS

Several companies changed the focus of their exploration programs to properties with base metal potential. Typically these are deposits with a polymetallic signature involving at least one precious metal. Obvious targets of this type in northwestern British Columbia are volcanogenic massive sulphide deposits and copper-gold porphyry deposits. Cominco Ltd. completed the second year of major drilling programs on both the Tulsequah and Anyox volcanogenic massive sulphide deposits and Western Canadian Mining Corporation defined reserves on the Kerr porphyry copper-gold deposit. With internationally declining base metal reserves the opportunity

TABLE A4
ADVANCED EXPLORATION PROJECTS IN NORTHWESTERN B.C.

PROPERTY	COMPANY	RESERVES
Windy Craggy	Geddes Resources Ltd.	100 Mt @ 2% Cu, 4 g/t Au, 0.1% Co
Tulsequah	Redfern Resources Ltd./ Cominco Ltd.	2.16 Mt @ 2.03% Cu, 1.25% Pb, 6.28 % Zn, 2.57 g/t Au, 91.9 g/t Ag
Sulphurets	Newhawk Gold Mines Ltd./ Granduc Mines Ltd.	1.4 Mt @ 17.4 g/t Au, 206 g/t Ag
Mount Klappan	Gulf Canada Corporation	1000 Mt anthracite
Al	Energex Minerals Ltd.	330 kt @ 10 g/t Au
Baker mine	Multinational Resources Inc.	45 kt @ 20.1 g/t Au, 176 g/t Ag, 0.75% Cu
Mets	Golden Rule Resources Ltd./ Manson Creek Resources Ltd.	160 kt @ 11.3 g/t Au
Dome Mountain	Teeshin Resources Ltd./ Canadian United Minerals Inc./	290 kt @ 12.7 g/t Au, 68.4 g/t Ag
Total Energold Corporation		
Telkwa	Crows Nest Resources Limited	50 Mt bituminous coal
Silver Queen	Houston Metals Corporation	1.72 Mt @ 328 g/t Ag, 2.7 g/t Au, 6.19 % Zn

exists for other companies to explore for base metals in anticipation of favorable metal prices in the 1990s.

The results of the last three years have proved that the precious metal potential of the Stewart mining camp extends north beyond the Iskut River. Further exploration will probably show that the gold belt can be traced to the northern limits of the Stikine terrane (Tulsequah-Tatsamenie Lake area). Grassroots exploration north of the Iskut River area should result in a number of new gold and gold-copper discoveries over the next few years.

Exploration for Motherlode-style auriferous quartz veins hosted by Cache Creek Group rocks continued in the Atlin area, targeted on zones of listwanitic alteration associated with placer gold deposits. North of Atlin several new precious metal showings have been found in the Atlin terrane. These results should encourage others to explore for gold away from the known placers.

More grassroots exploration than in the last several years led directly to new finds, particularly in the region from Stewart to Tulsequah. Prospectors played an important role in many of these new discoveries. The current exploration boom has generated demand for their skills and properties.

The development of new mines, such as the Reg and Lawyers, in areas that rely either exclusively or heavily on air access, is resulting in different economic impacts than for mines which rely entirely on road and rail transportation. Employees for these operations are being transported by air from a number of communities, including Vancouver. This disperses the mine employees among a number of communities and reduces the impact on any particular town.

Proposals for Recreation Corridors, Wilderness Areas and other designations which would affect access to Crown land for exploration have received much attention. One is the proposed Stikine Recreation Corridor which would extend along the lower Stikine River from Glenora to the Alaska Panhandle. Another is the Dease River Recreation Corridor stretching from Lower Post to Dease Lake.

Research activity into gold deposits and their hostrocks by the British Columbia Geological Survey, Geological Survey of Canada and various universities is producing important new ideas after approximately five years of concerted effort. The geological database for a number of areas in northwestern British Columbia has improved, particularly at the scale of 1:50 000. A more complete understanding of the nature and genesis of the gold deposits is assisting in the continuing search for more ore

SUMMARY OF EXPLORATION ACTIVITIES

MINERALS

A total of 288 Notices of Work for mineral exploration were submitted in 1988 for the Northwestern District. These varied from small programs by individual prospectors to large exploration projects with expenditures exceeding $5 million. Exploration programs were also completed on some of the developed properties listed in the following section. A summary of the major exploration properties with drilling, underground development or major surface exploration programs is presented in Table A3.

TATSHENSHINI RIVER AREA

Geddes Resources Ltd. continued its aggressive exploration program on the Windy Craggy deposit (1) in the extreme northwest part of the province. It spent $9.9 million to define the Gold zone and improve the definition of the ore reserves in the North and South massive sulphide zones. Initial drilling to intersect the Gold zone was disappointing, but four later holes cut the zone. One intersected 0.62 per cent copper, 4.5 grams gold and 3.4 grams silver per tonne over 18.6 metres. A crosscut through the South massive sulphide zone confirmed drill intersections and included a fine-grained pyrite section which contained more than 2 per cent copper and 0.1 per cent cobalt. Reserves for the massive sulphide bodies are in excess of 100 million tonnes of 2 to 3 per cent copper with 0.1 per cent cobalt. A special submission to the government outlined a proposed route for a road necessary to develop this project.

To the northeast, on Squaw Creek (2) near the Yukon border, Arbor Resources Inc. drilled through placer gravels to test a shear zone for the source of the placer gold.

ATLIN REGION

Northwest of Atlin in the Tutshi Lake area, United Keno Hill Mines Ltd. and Noranda Exploration Company, Limited drilled gold targets on the Mill (3) and Moon Lake (4) properties. Both properties are along the trace of the Llewellyn fault a long-lived structure paralleled by a belt of stream sediments containing anomalous amounts of gold and arsenic.

In the immediate Atlin area, several companies searched for Motherlode-style gold deposits hosted by Cache Creek Group rocks and associated ultramafic bodies, however, Homestake Mineral Development Company completed the only major projects; it drilled the Pictou (5), Heart of Gold (6) and Yellowjacket (7) properties. These drill holes are providing important geological information in an area characterized by limited outcrop. The British Columbia Geological Survey Branch started a 1:50 000-scale mapping program in 1988 to further advance the knowledge of the geology in the Atlin area.

TULSEQUAH RIVER - TATSAMENIE LAKE AREA

Cominco Ltd. continued to explore near the Tulsequah Chief mine (9) in the Tulsequah River area, tracing Kuroko-type volcanogenic massive sulphide horizons hosted by Triassic Stuhinni Group felsic volcanic rocks. All 1988 drill holes intersected one of the mineralized horizons. Drill hole 1998-3 intersected 17.5 metres grading 3.0 grams gold and 62.7 grams silver per tonne and 4.60 per cent copper, 0.25 per cent lead and 3.09 per cent zinc, more than 200 metres down plunge from the lowest mine level (see Table A4 for reserves). On the other side of the Tulsequah River, Suntac Minerals Corporation drilled several vein systems at the old Polaris Taku mine (10) and intersected encouraging gold values, including 19.5 grams gold per tonne over 3.1 metres.

To the east, in the Tatsamenie Lake area, the Golden Bear road reached the future mine site (*see* Development Projects, 11) providing access to this remote area. Dia Met Minerals Ltd. drilled the Bandit-Hijack (12) gold target located approximately 5 kilometres south of the Golden Bear deposit.

CASSIAR MINING CAMP

Diminishing ore reserves at the two operating gold mines in the Cassiar mining camp provided ample incentive for exploration at the two properties in 1988. Total Energold Corporation explored extensively on its claims surrounding the Erickson Gold mine (16) with drilling in the Main mine, Catherine, Vollaug, Beaton Creek and Finlayson adit areas. Drilling was completed for extensions of productive veins in the Main mine area, testing veins with no previous production and exploring for vertical veins beneath the Vollaug vein. In the Michelle zone 22 680 tonnes grading 34.3 grams gold per tonne were defined beneath the Cusac mine (17). Taurus Resources Ltd. explored in the Hopeful area (15) and completed mill tests on a bulk sample. The Erickson Gold, Taurus and Cassiar asbestos mines are discussed below.

A new map of the Cassiar area at 1:50 000 scale was published by the British Columbia Geological Survey Branch in early 1989 which provides a much needed updated geological database. Thesis research by M. Ball of Queen's University has identified two types of mineralized veins. Lower gold values are contained in older tetrahedrite-pyrite veins and higher grade gold occurs in deformed, grey quartz veins with associated sulphides.

North of Cassiar near the Yukon border at the Albert Creek property (13) Total Energold drilled the contact between the Upper Devonian McDame Group carbonates and Upper Devonian - Lower Mississippian transgressive black clastic rocks of the Lower Sylvester Group for manto mineralization. Results were disappointing although anomalous silver associated with fracture-controlled sulphides and weak zinc or barite mineralization was found in clastic sediments.

STIKINE AREA

Numerous claims were staked along the Stikine River and to the east as far as Mount Edziza Park. The interest in the area developed from recent discoveries in the Iskut River area to the south, coupled with known porphyry copper-gold occurrences at Galore Creek and Schaft Creek. Although more than ten companies explored in the area, the only drilling was completed on Continental Gold Corp.'s Trophy Gold project (20) near the headwaters of the Skud River. The best assays on this property came from the Ptarmigan zone, including an 11.1 metre intersection which contained 5.5 grams gold and 30.2 grams silver per tonne. The zone consists of a breccia with associated silicification and a sulphide-rich matrix containing pyrite, sphalerite, galena, arsenopyrite, native gold and electrum. Surface exploration by Continental Gold discovered numerous chalcopyrite-magnetite skarns. Future exploration in this area is expected to find more skarn, replacement and porphyry deposits with associated copper and gold values. Two 1:50 000 maps by the British

Columbia Geological Survey Branch covering the Galore Creek and Scud River areas were released in early 1989.

East of Mount Edziza drilling was completed on the Teck Explorations Ltd. Castle (18) and Bee Jay (19) properties to test gold mineralization in a structurally controlled pyritic alteration zone and quartz sulphide veins, respectively.

In August the Regional Geochemical Survey results were released for the Iskut River, Telegraph Creek, Sumdum and Tulsequah map sheets. Numerous gold anomalies from these stream sediment samples attracted immediate attention and generated a staking rush.

ISKUT RIVER AREA

The Iskut River area was explored by more than 30 companies, spending in excess of $15 million. Drill programs were completed by 16 companies (*see* Table A3; 22-37). Exploration was typically focused on gold in veins and shears with associated quartz, carbonate, sulphides or chlorite and hosted by Triassic Stuhini or Jurassic Hazelton Group volcanics and sediments.

Alteration zones with widely spread anomalous gold, copper and sometimes molybdenum values were also tested by Skyline Explorations Ltd. (35), Keewatin Engineering Inc. (33) and Meridor Resources Ltd. (31) for high-grade gold zones. Initial results suggest these zones are weakly mineralized, porphyry-style deposits with limited potential for high-grade mineralization. Replacement mineralization is being investigated by several companies following the success of Gulf International Minerals Ltd. on the McLymont Creek property (22). Drilling intersected intense silicification in a Permian crinoidal limestone with patchy pyrite, magnetite, specular hematite, barite, chalcopyrite, sphalerite and galena. Mineralization over widths of metres to tens of metres has been identified. One of the better intersections averaged 0.36 per cent copper, 22.6 grams silver and 13.8 grams gold per tonne over a width of 5.2 metres.

Approximately 40 kilometres to the southeast, Echo Bay Mines Ltd. drilled the Q17 vein on the Doc property (49). Hosted by Mesozoic sedimentary rocks, the mineralization is similar to that found in the Iskut River area. Current reserves on the Q-17 and six other veins are 425 890 tonnes grading 9.26 grams gold and 44.9 grams silver per tonne.

The Geological Survey of Canada is currently mapping the Iskut River 1:250 000 sheet to provide a much needed updated regional map.

SULPHURETS AREA

Silver-gold deposits hosted by volcanic and sedimentary rocks of the Jurassic Hazelton Group were the target for exploration companies in the Sulphurets and Stewart areas. Typically these deposits are quartz veins and siliceous breccias containing tetrahedrite, pyrargyrite, proustite, polybasite and electrum.

In the Sulphurets area Newhawk Gold Mines Ltd. continued its exploration on the Sulphurets property (42) with extensive drilling and underground drifting on the West zone. Results included a spectacular intersection in the new U.T.C. zone of 408 grams gold and 1570 grams silver per tonne over 9.1 metres. (*see* Table 4A for reserves). Immediately west of the Sulphurets property, Western Canadian Mining Corporation drilled the Kerr (39) a porphyry copper-gold prospect and estimated reserves of 60 million tonnes of 0.84 per cent copper, 0.34 grams gold and 2.05 grams silver per tonne. Catear Resources Ltd. and related companies drilled the Mount Madge (40) properties in the area.

To the north, near Tom MacKay Lake, Calpine Resources Ltd. (38) discovered the new 21 gold zone, an alteration zone roughly conforming to a contact between felsic volcanic breccias and clastic sediments. The high-grade mineralization occurs with massive realgar, stibnite and orpiment. Other sulphides including sphalerite and galena occur as disseminations and lenses within the alteration zone. Hole CA88-6 intersected 29.1 metres of 25.0 grams gold and 37.7 grams silver per tonne.

Current geological mapping at 1:50 000 scale by the British Columbia Geological Survey Branch is providing a very necessary database for exploration companies working in the area. Research results from this work in the Stewart area have shown that many of the gold deposits can be related to one epoch of mineralization of Jurassic age. Several researchers from the Geological Survey of Canada are working on geochemical and ore-deposit research in the Sulphurets area.

STEWART MINING CAMP

In the Stewart Mining camp Westmin Resources announced production plans for its Silbak Premier (48) and Big Missouri (45) deposits (*see* Development Projects). Exploration included underground geological mapping and drilling at Silbak Premier and surface drilling on the High Ore (Woodbine) property (47) and Big Missouri deposit. Esso Minerals Canada carried out major exploration programs on the Silver Butte (44) and Indian (46) veins. Esso Minerals followed surface intersections on the high sulphide Facecut-35 zone with underground drilling and completed extensive drilling on the new low-sulphide Kansas zone intersected in only one hole in 1987.

Northeast of Stewart several companies explored the Knip (50), Todd Creek (51), AM (52) and Joutel (53) for deposits similar to the high-grade mineralization mined at Silbak Premier. Immediately north of Stewart the Dunwell mine (54) was rehabilitated and diamond drilling indicated there is depth potential for the quartz-sulphide vein. On the nearby Glacier Creek property (55), Morocco Explorations Inc. drilled three holes.

A recent University of British Columbia Master's thesis by D. Brown on the Silbak Premier property and surrounding area is an extremely useful reference for the Stewart area.

PORTLAND CANAL AREA

Favorable Hazelton Group lithologies extend southward from Stewart into the Portland Canal area, although most of the deposits are typically silver-lead-zinc veins or conformable sulphide horizons. At the Georgia River property (56) Avatar Resource Corporation drilled the northerly trending main vein to test the precious metal mineralization with associated base metal values.

Cominco Ltd. continued its exploration program on the Anyox property (57) with drilling in the Bonanza and Hidden Creek areas targeted on volcanogenic massive sulphides near the sediment- volcanic contact. Hidden Creek produced 24 million tonnes grading 1.5 per cent copper, 0.17 gram gold and 10.3 grams silver per tonne. Immediately to the east Pacific GeoRock Exploration Ltd (58) completed surface exploration and drilling on quartz veins which were mined for flux for the Anyox smelter.

In the Alice Arm area, Richmark Resources Ltd. explored the Tidewater property (59), a molybdenite occurrence. All 1979 and 1980 drill-core pulps were re-assayed which revealed geochemically anomalous gold values. The subsequent drilling program intersected polymetallic mineralization at depth.

At the north end of the Kitsault valley, Cominco Ltd. (60) continued to explore for silver along a shear zone with sparse sphalerite and pyrite mineralization.

PRINCE RUPERT REGION

A high proportion of the companies exploring in the Prince Rupert region carried out major programs. On Dunira Island (61) several holes were drilled by Orequest Consultants Ltd. to test for massive sulphide potential. The area lies within the Alexander terrane which hosts the Windy Craggy and Greens Creek volcanogenic massive sulphide deposits.

Immediately south of Prince Rupert on Porcher Island, Cathedral Gold Corporation completed an extensive drilling program on the old Surf Point and Edye Pass mines (62) increasing the known reserves to 565 173 tonnes grading 6.85 grams gold per tonne. The mineralization is auriferous pyrite in quartz veins and shears hosted by a quartz diorite stock. On Princess Royal Island another past gold producer, the Surf Inlet mine (64), was also attracting attention with underground rehabilitation and drilling by Surf Inlet Mines Ltd.

On Banks Island, Hillsborough Resources Limited (63) drilled one hole on the Kim low-grade gold zone and another on the Discovery zone high-grade gold skarn. On the south side of the Khutze River, Freemont Gold Corporation (65) drilled a quartz vein containing gold in pyrite and chalcopyrite.

TERRACE-KITIMAT AREA

In the Terrace area Terracamp Developments Ltd. (66), Univex Mining Corporation (68) and Castello Resources Ltd. (67) examined gold occurrences with old underground workings. The mineralization is typically quartz veins with associated sulphides.

TOODOGGONE RIVER AREA

In the Toodoggone River area the mineral deposits are porphyry deposits, skarns and mesothermal to epithermal veins. Initial exploration in the area was directed towards the porphyry deposits; however, during the past ten years numerous gold-silver epithermal veins have been identified. The veins are hosted by Triassic Takla Group and Early Jurassic Toodoggone volcanics which are equivalent to the Hazelton Group. The veins are restricted to the first stage of volcanism in the Toodoggone volcanics and therefore exploration can be targeted at the stratigraphy at or below this level. Major northwest-trending faults appear to be important in localizing the mineralization. Although overall activity levels in the Toodoggone were down from 1986 and 1987, total exploration expenditures exceeded $6 million with more than 25 companies working in the general area. Cheni Gold Mines Inc. continued preproduction work with plans for startup in early 1989.

In the northern part of the Toodoggone area, Energex Minerals Ltd. continued work on the Al property (69) with drilling on the BV, Bonanaza, Ridge, Bingo and Thesis II zones to increase reserves (*see* Table A4) and to search for extensions of known zones. For the first time since Kidd Creek's work in 1984, Energex Minerals Ltd. explored the JD property (70) carrying out a major trenching program to test a low-angle fault with associated gold mineralization. Manson Creek Resources Ltd. drilled seven holes on the Mets property (71) to increase the ore reserves established in 1987 (see Table A4). Cyprus Metals (Canada) Ltd. continued drilling on the Moosehorn property (72) testing two zones on either side of the Toodoggone River near Moosehorn Creek.

South of the Toodoggone River, Sutton Resources Ltd. drilled the Main Zone on the Golden Stranger property (73) to test it at depth and along strike. Encouraging values were intersected including 5.05 grams gold per tonne over 10.7 metres in hole 25. Bond Gold Canada drilled several zones on its Silver Pond property (74). On the Chapelle property (76) the New and North Quartz zones and A, B and C veins were drilled by Multinational Resources Inc. Minor new reserves (less than 10 000 tonnes) were identified in the A vein. Esso Minerals Canada tested five zones on the Shasta property (77) including the JM and Creek zones. The most continuous mineralization occurs as quartz veins and stockworks with electrum, argentite, pyrite and traces of sphalerite, galena and chalcopyrite. Small calcite veins were found to have high gold and silver values as well. On the Brenda property (78) both the Takla and Creek zones were tested.

Along the Finlay River, Skylark Resources Ltd. drilled the Electrum, Beaver Dam and Writch zones on the Firesteel property (79). The first two zones consist of silver and gold-bearing veins hosted by Toodoggone volcanics. The Writch zone veins contain silver, lead and zinc mineralization hosted by Takla volcanics.

South of the Finlay River and east of Thutade Lake, Hermes Ventures Ltd. (80), St. Phillips Resources Inc. (81) and El Condor Resources Ltd. (82) explored in Takla volcanics for skarn and porphyry deposits. On the Kemess Creek property, St. Phillips Resources Inc. intersected 73 metres grading 0.486 gram per tonne gold and 0.20 per cent copper.

SMITHERS-HOUSTON AREA

Silver-rich veins, replacement mineralization and deposits transitional to porphyry deposits (for example, Equity Silver) were the principal exploration targets in the Smithers-Houston area. Base metal and gold values associated with the silver make these polymetallic occurrences attractive. Major exploration programs on these deposits were completed on the Knoll (84), Max (85), Rocher Déboulé (86), Fireweed (87), Cronin (88), Victory (89), Bob Creek (92), Silver Queen (93), Equity Silver minesite (94) and Gaul (91) properties.

The Canadian United Minerals Inc. Fireweed property generated considerable interest with the definition of the West and East mineralized zones hosted by Skeena Group argillites and sandstones. The mineralization occurs as disseminations of galena and tetrahedrite(?) in sandstones and as massive sulphide veinlets and conformable layered bands containing pyrite, pyrrhotite and chalcopyrite. Drill intersections of the mineralized sandstones return intercepts such as 13 metres grading 607 grams silver per tonne, 1.8 per cent lead and 3.1 per cent zinc from hole 88-22.

Near Owen Lake, Houston Metals Corporation continued its major exploration program on multiple silver-lead-zinc-gold veins hosted by Cretaceous Tip Top Hill volcanics. Expenditures were in excess of $3 million. Underground development focused on accessing the southeastern end of the No. 3 vein with a decline, and driving the Bulkley crosscut towards the Cole Lake area. Drilling was completed on several veins with the majority of holes testing the No. 3 vein; less than ten holes were drilled on the Camp and George Lake zones. A feasibility study was completed by Cominco Engineering Services Ltd. in October which recommended more metallurgical studies and the definition of more high-grade gold-silver ore on the No. 3 vein before production could be considered.

On Dome Mountain (90) Teeshin Resources Ltd. drilled on the Cabin vein and Elk showing searching for additional ore reserves (see Table 4A). Legal ownership of the Dome Mountain property continued to be clouded by disputes between Teeshin Resources Ltd., Canadian United Minerals Inc. and Total Energold Corporation. Southern Gold Resources Ltd. (86) rehabilitated the Rocher Déboulé underground workings and drilled 14 holes to test for gold mineralization.

Geological mapping of the Smithers area at 1:50 000-scale was extended to Hudson Bay Mountain and the Telkwa Range by the British Columbia Geological Survey Branch. This mapping program covered the Dome Mountain and Cronin mine areas in previous summers. The mapping is highlighting the volcanic stratigraphy of the area which correlates with the various types of mineralization.

TAHTSA LAKE-OOTSA LAKE AREA

On Sibola Mountain (95) Teeshin Resources Ltd. drilled the East and West zones intersecting pyrite and sphalerite as stringers and thin lenses in the latter. The mineralization appears to be related to the nearby Whiting Creek porphyry copper-molybdenum deposit. Southeast of Kemano, Fleck Resources Ltd. drilled a major vein on the Smith-Nash property (97) and established reserves of 20 130 tonnes grading 10.4 grams gold per tonne over a 2.2 metre mining width.

Virtually all exploration in the Ootsa Lake area was directed toward finding epithermal precious metal deposits hosted by Eocene Ootsa Lake Group volcanic rocks. Typically the mineralization occurs as large areas of silicification with associated values in silver and gold.

TABLE A5

DEVELOPMENT STAGE PROJECTS IN NORTHWESTERN B.C.

PROPERTY	COMPANY	ORE RESERVES
McDame	Cassiar Mining Corp.	16 Mt @ 5.6% asbestos fibre
Golden Bear	Chevron Minerals Ltd./ Homestake Mining (B.C.) Ltd.	1.63 Mt @ 11.0 g/t Au
Snip	Cominco Ltd./ Delaware Resources Corp.	1.43 Mt @ 21.9 g/t Au
Goldwedge	Catear Resources Ltd.	270 kt @ 28.7 g/t Au, 29.5 g/t Ag
Big Missouri	Westmin Resources Ltd./ Canacord Resources Inc./	1.58 Mt @ 3.6 g/t Au, 80.2 g/t Ag

Drill programs on these targets were completed by Chalice Mining Inc. (96) and Mingold Resources Inc. (98). Further to the southeast of these properties Lac Minerals Ltd. (99) drilled a pyritic zone in Hazelton Group volcanic rocks identified by anomalous stream-sediment analyses.

Geological mapping by for the British Columbia Geological Survey Branch has identified several areas of potential epithermal mineralization in the Whitesail Lake area and also determined a local stratigraphy and age for the Ootsa Lake Group volcanic rocks.

COAL

Four Notices of Work were filed on coal properties in the Omineca Mining Division. On its Klappan property (100) in the Bowser Basin south of Dease Lake, Gulf Canada Resources Inc. completed diamond drilling in the area of the proposed open pit. In the Hazelton area Atna Resources Ltd. (101) drilled three holes to test bituminous coal seams in Skeena Group sediments. After several years with no exploration, Crows Nest Resources Ltd. (102) drilled fourteen holes on the north side of the Telkwa River in an attempt to increase coal reserves (see Table A4).

PLACER

The most active placer area in northwestern British Columbia was the Atlin area with mining activity focused on Pine, Otter and Spruce creeks. A large operation by Queenstake Resources Ltd. on Pine Creek (8) is estimated to have produced 429 000 grams of gold. A total of 52 placer Notices of Work, exactly the same number as 1987, were filed for the Atlin Mining Division, including three located on Squaw Creek near the Yukon border.

In the Liard Mining Division 39 Notices of Work were submitted, a decline of 20 per cent from 1987. McDame, Dease and Rosella creeks and the Barrington River were the most active areas. Integrated Resources Ltd. conducted a large placer operation on the Barrington River (21). Three and five Notices of Work were filed in the Omineca and Skeena mining divisions respectively. Neither division had any placer mining activity in 1987.

DEVELOPMENT PROJECTS

Development work continued on the Golden Bear (11) gold deposit located approximately 140 kilometres west of Dease lake. The property is now owned by the Golden Bear Operating Company, a subsidiary of Homestake Mineral Development Company and Chevron Canada Resources Ltd. A gravel road was constructed to provide access to the minesite. On-site construction included building a permanent camp, upgrading both the airstrip and roads on the property and starting foundations for the plant. Current plans are for the mine to be in production in late 1989 at a milling rate of 350 tonnes per day.

With the announcement of a production decision for the McDame asbestos deposit, Cassiar Mining Corporation moved to assure its supply of asbestos for at least the next ten years. Development work consisted of slashing on the two levels, starting a decline for a conveyor system and laying a pipeline to the portal.

In conjunction with a major exploration program, Cominco Ltd. started development work aimed at putting the Snip deposit in the Iskut River area into production in late 1989. The airstrip was upgraded to handle Hercules and DC-6 aircraft and modifications were made to the camp. Cominco submitted its Stage 1 report in August 1988. The mine is to be supplied by aircraft flying from various points including Smithers, Wrangell, and Vancouver. Underground development has confirmed surface drill intersections and current reserves now exceed 1.4 million tonnes with 25 per cent dilution (*see* Table A5).

In the Sulphurets area Catear Resources Ltd. completed a drilling program on the Goldwedge fractional claim group (41) testing the Golden Rocket, Discovery and Goldridge veins to increase reserves (*see* Table A5). A decline with associated underground development was completed on the Golden Rocket vein. A 50-ton-per-day mill was constructed and in 1988 it was in the final stage of commissioning with low-grade ore being processed prior to milling the high-grade stockpile. Plans are to upgrade the mill in 1989 to 225 tonnes per day.

Westmin Resources Limited announced a production decision for the Big Missouri (45) and Silbak Premier (48) silver-gold deposits located north of Stewart. The mill is currently under construction with the creek diversion, tailings pond, transmission line and Big Missouri access road completed. Initial stripping for the Silbak Premier and Dago open pits has started. The Big Missouri mining operation will be seasonal with stockpiling of ore because of the high snowfall. Initial production is planned for April 1989.

The Lawyers gold-silver deposit (75) of Cheni Gold Mines Inc. in the Toodoggone River area will be in production in early 1989. Initial production will be from the AGB zone with later development of the Cliff Creek and Duke's Ridge zones. The tailings pond, camp, haulage level and initial stope development have been completed. The mill was virtually complete by the middle of December and ore was mined and stockpiled for the last three months of 1988. The mill will process 500 tonnes per day.

EXPLORATION OPPORTUNITIES

Numerous areas in the Northwestern District with excellent mineral potential are still open for staking. Some of the best exploration opportunities are:

- Polymetallic volcanogenic massive sulphide deposits in the Tatshenshini River, Cry Lake and Prince Rupert areas.

- Copper-gold porphyry deposits in the Stikine terrane, such as the Galore Creek and Bell Copper deposits.
- Mesothermal gold veins and skarns associated with major faults on the coastal islands south of Prince Rupert.
- Epithermal precious metal deposits with associated silicification, hosted by Eocene volcanics in the Ootsa-Francois Lake area.
- Silver-lead-zinc manto deposits, similar to the Mount Hundere deposit in the Yukon, hosted by Devonian carbonates in the Cassiar thrust and fold belt.
- Motherlode-style gold deposits in the Atlin terrane away from Atlin.

CENTRAL DISTRICT

By E.L. Faulkner, District Geologist, Prince George

INTRODUCTION

Mineral exploration in the Central District in 1988, as measured by Notices of Work filed, matched the record pace set in 1987. Expenditures however, were up an estimated 10 to 15 per cent, due to the number of large-budget programs this year. Late mobilizations, follow-up programs and winter drilling were a feature of the year.

Precious metals, in all forms of deposit, once again dominated exploration targets. Despite improved prices and a better long-term outlook, there was little interest in base metals, and interest in industrial minerals was also low. As in 1987, coal exploration was largely confined to the vicinity of existing operations.

HIGHLIGHTS

- An aggressive exploration and development program at Blackdome gold mine.
- Imperial Metals Corporation outlined open-pittable zones at the Cariboo Bell copper-gold deposit.
- Mosquito Consolidated Gold Mines Limited began a $7.5 million program to explore the old Island Mountain and Cariboo Gold Quartz mine workings.
- Mineable grades and tonnages were outlined at the Phil-Heidi (Mount Milligan) copper-gold deposit by Continental Gold Corporation and United Lincoln Resources Ltd.
- A prospectus was filed for the QR gold deposit, with production scheduled for 1990.

TRENDS AND OPPORTUNITIES

Many companies, juniors especially, experienced difficulty raising funds for exploration projects this year. This in turn resulted in several delayed or cancelled projects. This trend is expected to persist in 1989. The shift in exploration interest from the Cariboo to the Omineca continues. The attraction of the Omineca lies in the rapidly improving access as logging in the area intensifies, coupled with some promising results from properties such as the Phil-Heidi, Takla Rainbow and Tas.

Major opportunities exist in the northern Quesnel trough for the discovery of alkali-porphyry-related copper-gold deposits. As in the southern part of the trough, the target intrusives appear to have good magnetic signatures, with spatially related placer gold mineralization or gold geochemical anomalies in soils. Unlike the southern part of the trough, where the most promising discoveries to date have been limited to a strong linear trend on its western margin (for example QR, Cariboo Bell), targets in the northern Quesnel trough appear to be more scattered (for example Chuchi, Phil-Heidi, Takla Rainbow, Windy).

Another developing target area is in Cache Creek Group or Takla Group rocks along the Pinchi fault system. Precious metal mineralization has been found in quartz-sulphide veins or shear zones, commonly associated with listwanitic alteration. Targets are usually characterized by high-contrast geochemical anomalies.

In placer mining, where the scope for traditional small-scale operations continues to be very limited, there is a trend toward larger, more innovative and better-financed projects, targeted on interglacial and preglacial deposits or buried channels.

SUMMARY OF EXPLORATION ACTIVITY

A total of 164 mineral Notices of Work were received to the end of November - the same as in 1987. The number of drilling or underground exploration projects, at 61, was also close to the 1987 figure. Placer Notices of Work, at 456, were up 8 per cent from 1987. Table A3 gives some details of selected major exploration programs in the district, with the locations shown on Figure A2. Table A2 gives details of the five operating mines in the district.

MINERALS

QUESNEL TROUGH

Exploration in the Quesnel trough continued at a high level, mostly on established properties. Targets were precious metals in volcanogenic massive sulphides, alkali porphyry and porphyry-related deposits, and basal phyllite-hosted gold deposits.

Placer Dome Inc. completed 18 980 metres of drilling at the QR alkali-porphyry-related gold deposit (105), for reserve definition, ore grade calculation and mine planning purposes. Baseline environmental studies were also completed and a Prospectus filed with the Mine Development Steering Committee. Production is scheduled to start in 1990 at a rate of 5400 tonnes per day, and the mine is expected to employ 70 people. Mining will start by open pit on the Main zone, with West and Midwest zones to be mined later by decline or adit from the Main zone pit. Placer Dome also drilled two other alkali-porphyry targets near the QR deposit, including 3660 metres on the

Maud (106) and 730 metres on the Kwun (110), with largely disappointing results.

Imperial Metals Corporation completed 99 holes at the Cariboo Bell alkali-porphyry deposit (107) in a program to outline a zone or zones containing higher grade gold values within the deposit. The elevated gold values occur with chalcopyrite in skarn-like zones of magnetite and potash feldspar alteration that appear to be structurally controlled. Seven zones were tested, and in the south, south central and west zones, 48 million tonnes grading 0.44 per cent copper and 0.5 gram per tonne gold or better were outlined. These could be mined from a single pit at a stripping ratio of 2:1. Definition drilling and feasibility studies are planned for 1989. Imperial Metals also completed a modest drilling program on the Jamboree property (113), another porphyry target.

Gabriel Resources Inc. completed a major program of drilling, trenching, geochemistry and geophysics on the G South property (117), begun in 1987. Gold occurs with massive sulphides in steeply dipping veins in a block-faulted pattern in andesite porphyry flows. No major additions to the known reserves of 45 000 tonnes grading 9.3 grams per tonne gold were made however.

Noranda Exploration Company, Limited, completed 700 metres of drilling, with more planned, at the Hixon Creek property (120) where gold-bearing quartz-sulphide veins were explored on several underground levels in the 1930s.

In the southern part of the Quesnel trough, GWR Resources Ltd. drilled four holes on the Miracle property (130), a gold-bearing sulphide vein in andesitic volcanics. Results were encouraging and a follow-up drilling program is planned.

BASAL PHYLLITE-HOSTED GOLD

Exploration of several properties in the basal phyllites of the Quesnel trough took place again this year. Drilling and underground exploration continued at the Frasergold property (114), despite a legal dispute between the joint-venture partners, Eureka Resources Inc., Sirius Resources Ltd., and Southlands Mining Corporation. A total of 183 metres of adit and crosscuts were completed on the main Jay zone, as well as over 2700 metres of percussion and diamond drilling. The underground work showed a good visual correlation between the higher grade hangingwall of the Jay zone and the amount of secondary quartz structures developed in the phyllites. This correlation may be of value to others exploring basal phyllite targets.

On the CPW property (108), Pundata Gold Corporation completed a major program of rotary and diamond drilling, trenching and metallurgical tests begun in 1987. Other phyllite targets explored were the Nov (104) by Malcolm Resources Ltd., and the Forks (111) and Tep (112) properties by Armada Gold and Minerals Ltd. As with most phyllite-hosted prospects tested to date, results were mixed to occasionally good, with Armada, for example, reporting a 2-metre sample assaying 30.8 grams per tonne gold from a trench on the Forks property.

BARKERVILLE - CARIBOO MOUNTAINS

Mosquito Consolidated Gold Mines Limited began a major program of underground exploration at the adjacent Island Mountain and Cariboo Gold Quartz mines (122). The principal objective is to test the Main Band limestone for replacement gold-pyrite mineralization. The Main Band limestone hosts all the ore found to date at the Mosquito Creek mine but was virtually untested at the other two mines.

The Jukes adit was driven 964 metres to connect with the Island Mountain workings and drifts in Main Band and Aurum limestones started. Two massive sulphide lenses containing ore-grade mineralization have been discovered to date, one in the Main Band limestone and the other in the Aurum limestone.

Wells Gold Ltd. also explored for sulphide replacement mineralization in limestone with a drilling and trenching program at its Mount Tom and Whipsaw properties (123) near Wells, with some gold-bearing pyrite mineralization located. Also drilling for gold in vein targets in the Barkerville terrain were Gibraltar Mines Ltd. at the Duck property (103), where a base-metal quartz-vein system contains significant precious metals, and Rise Resources Inc. at Antler Creek (109).

Noranda Exploration drilled 900 metres in 12 holes on coincident geochemical and geophysical anomalies at Indian Lake (124). Near Eaglet Lake, Castello Resources Ltd. drilled the Com property (125), a polymetallic sulphide target in Slide Mountain Group andesites near the contact with a Tertiary granite stock, with disappointing results.

OMINECA

Exploration for gold mineralization associated with alkali-porphyry and porphyry intrusions continues to highlight results from the Omineca. The United Lincoln Resources Limited - BP Resources Canada Ltd. joint venture continued a major drilling program on the Phil-Heidi property (134) on the flanks of the Mount Milligan stock. The stock is a multi-phased alkali porphyry intruding a series of augite porphyry flows and tuffs. Gold occurs with disseminated chalcopyrite and iron sulphides in several zones of potassic alteration in the flows. The most promising of these zones, the MBX, has a drill-indicated potential of more than 100 million tonnes with grades in the range 0.5 to 1.4 grams per tonne gold and 0.3 to 0.5 per cent copper. Two examples of the better intersections recovered are 85 metres of 0.86 gram per tonne gold and 0.6 per cent copper, and 76 metres of 2.16 grams per tonne gold and 0.5 per cent copper.

Cathedral Gold Corporation completed 39 holes totalling 7625 metres on the Takla Rainbow property (135). Gold occurs with quartz and minor sulphides in several steeply dipping shear zones in highly altered andesites that have been intruded by an alkali-porphyry border phase of the Hogem batholith. Good gold values were obtained in most holes, and the continuity of the mineralization, which is poor near the intrusion, appears to improve in the South zone, away from the batholith.

The Noranda Exploration - Black Swan Gold Mines Ltd. joint venture reported mixed to good results from drilling on the large Tas property (132), where gold occurs with pyrite, pyrrhotite and minor chalcopyrite in several zones in augite porphyry flows adjacent to a granodiorite porphyry stock. Most of the results reported to date were from drilling on the Ridge zone, with intersections ranging from 0.4 metres to 3.2 metres and grades ranging from 4.1 to 25.7 grams per tonne gold.

Eastfield Resources Ltd. completed a major program of drilling, trenching and soil geochemistry at the Indata property (136). Gold occurs with quartz, pyrite, arsenopyrite and other sulphides in shear zones, associated with quartz-carbonate alteration. The host rocks are andesites, minor diorite porphyry intrusions and serpentinites in a thrust slice of the Pinchi fault system. Gold mineralization was shown to occur over a strike length exceeding 1.5 kilometres. Typical intersections ranged from 0.5 metres to 1.8 metres with grades from 1.0 to 6.8 grams per tonne gold. One intersection of 6.1 metres grading 31.5 grams per tonne gold was also reported.

Several other companies were active in the Omineca, either through joint-venture interests or with early-stage programs, including Chevron Canada Resources Ltd., Ezekiel Explorations Ltd., Kookaburra Gold Corporation Ltd., Lornex Mining Corporation Ltd., and Placer Dome Inc.

FRASER PLATEAU

There was a modest level of exploration on the Fraser Plateau this year. Targets were epithermal gold mineralization in silicified breccia zones in the plateau basalts, possibly related to volcanic vents, or in fault zones in basement inliers. Although several target areas have been identified and tested, grades reported to date have generally been subeconomic. The potential exists, however, for large-tonnage, low-grade heap-leachable deposits.

Lac Minerals Ltd. continued exploration of its Bob property (115) with a program of rotary drilling in the upper oxidized zone of the host quartzites. Lornex Mining Corporation Ltd. completed four holes and some trenches on the Oboy property (116), a volcanic centre, with disappointing results. Canamax Resources Inc. completed a program of geochemistry, trenching and nine follow-up holes at Gaspard Lake (128), a new epithermal vein discovery. Assays of veins intersected in the drilling however, were much lower than surface assays. Other companies with small programs on the Fraser Plateau included Ballatar Explorations Ltd., Kookaburra Gold Corporation Ltd., Lexington Resources Ltd., and Noranda Exploration Company, Limited.

COAST RANGE MARGINAL BELT

Activity in the Coast Range marginal belt was down this year, with a few programs mostly on established properties. Lord River Gold Mines Ltd. continued with its underground exploration and sampling program at the Pellaire property (127), a series of epithermal gold-quartz veins in Kingsvale andesites, with the hope of increasing the known reserves. Kleena Kleene Gold Mines Ltd. continued drifting toward the downward projection of gold-bearing quartz veins exposed at surface on the Perkins Peak property (138), and planned to drift on a 2-metre-wide quartz-sulphide vein encountered in last year's drifting. Grab samples from this vein assayed 11 grams per tonne gold. Jacqueline Gold Corporation completed a small program of geochemistry, geophysics and drilling at the Newmac property (126), an old porphyry copper-gold prospect.

OTHER AREAS

Two other properties on or near the Pinchi fault system were drilled in addition to the Indata, described earlier. Noranda Exploration explored a new discovery at Cluculz Lake (118) where gold occurs associated with carbonate and listwanite alteration zones in mixed argillaceous sediments, volcanics and serpentinites. Drilling was in progress following an earlier program of geochemistry, geophysics and trenching. Lac Minerals Ltd. completed 800 metres of rotary drilling on the York property (119) where gold occurs in graphitic shear zones in schistose host rocks, marked by high arsenic anomalies in soils.

X-Cal Resources Ltd. continued exploration of the lateral extent and continuity of the gold-antimony-bearing listwanite alteration zones at the Snowbird property (133) with a major program of percussion drilling, trenching, geochemistry and geophysics. The Main zone was traced for an additional 1.5 kilometres and a number of gold-bearing targets identified for winter drilling.

In the Swannell Ranges, Canmine Development Co. Ltd. completed a preliminary drilling program of eight holes on the Vega property (137) following the discovery of several gold geochemical anomalies in soils. Gold occurs in silicified zones in hydrothermally altered andesite breccias. An old adit was also sampled. The results were disappointing.

PLACER

Placer mining activity was up slightly from 1987, with expenditures by placer miners in the district (Cariboo and Omineca) estimated at over $10.5 million. Considerable interest was shown by miners in the changes to placer mining tenures under Bill 66, the Mineral Tenure Act, but no statistics on new placer claims staking, following proclamation of the Act, were available from the Titles Branch at the time of writing. Individuals and companies are increasing the use of more modern gravity separation equipment such as jigs and spirals in their plants, and are turning their attention to opportunities in mining buried channels or interglacial and preglacial deposits. Preido Mines Ltd., for example, at its Eight Mile Lake property (121) mined interglacial gravels below overburden and tailings from previous operations. In addition it drained the lake and tested interglacial gravels beneath the recent lake sediments.

COAL

The only company with a major exploration program outside its immediate production area was Quintette Coal Ltd. (131). Quintette completed 51 rotary and 16 diamond-drill holes totalling over 8000 metres, exploring the Gates Formation along the structural trend of the Mesa and Mesa Extension pits. The bulk of this drilling was southwest of the Mesa area.

KOOTENAY DISTRICT

By A. Legun, District Geologist, Nelson

INTRODUCTION

Exploration activity in the Kootenay District in 1988 is comparable to that in 1986 but lower than 1987, as indicated by the 195 Notices of Work submitted to the end of November. These are distributed as follows: 82E, 24; 82F, 118; 82G, 12; 82J, 3; 82K, 37, and include 23 programs involving drilling of six holes or more. Of significance is renewed activity in the Rossland area. As well, evaluation of a number of old lode gold and silver producers continued.

As in 1987, work was directed almost entirely toward precious metal targets. Reserves were increased in a number of deposits including Tillicum Mountain (171), Willa (164), Abbot-Wagner (167), Golden Crown (176) and Nugget (152). The O.B.-Skylark mine (177) at Greenwood went into full production to become the third significant metal-producing mine in the district following the Sullivan (Cominco Ltd.) (150) and Silvana (Dickenson Mines Limited) (166). Tillicum Mountain (Esperanza Explorations Ltd.) and Willa (Northair Mines Limited) are at the development and advanced exploration stage respectively.

In coal exploration total drilling is somewhat less than the 24 000 metres recorded in 1987. Total production however increased by 4.6 million tonnes. There were no exploration programs for industrial minerals in contrast to the drilling programs for gypsum and magnesite last year.

EXPLORATION

Table A3 lists the more significant exploration programs completed or announced in the district during 1988. The project numbers in the table and the following text are keyed to the location map, Figure A2. Exploration programs are discussed by geographic area (NTS).

82E

At the Golden Crown property (176) of Consolidated Boundary Exploration Limited, continuity of mineralization in the King vein to about 40 metres below drift level has been established. An underground program of 600 metres of drifting, 12 diamond-drill holes (600 metres) and a raise to old workings was completed at a cost of $1.3 million. New reserves were quoted as 70 000 tonnes grading 13.8 grams per tonne gold.

Eight diamond-drill holes have been completed on the Sylvester K (178) gold-bearing pyrrhotite lens of Kettle River Resources Ltd. Mining of the deposit by Skylark Resources Ltd. is expected in 1989.

82F

Work in this area generally extended in a belt from Sandon in the north, through Nelson and Salmo, to Rossland in the south. In the immediate Nelson area, on the Great Western Group (158), Lectus Developments Ltd. continued its search for gold in silicified lenses in felsic volcanics. A total of 31 holes was followed by further geochemical sampling and an induced polarization survey. A joint venture program was initiated with U.S. Borax on the adjacent Star property (159). Near the property boundary there were interesting gold-silver intercepts in eight diamond-drill holes (up to 20.6 grams gold and 123.4 grams silver per tonne over 1.5 metres). Drilling was recently carried out on the Alma N, Star-Eureka and new S.E. zones.

Nearby, South Pacific Gold Corporation completed six diamond-drill holes for a total of 763 metres on the Shaft claims (157). Mineralization consists of chalcopyrite and gold in an altered diorite within the Rossland volcanics. A number of exploration programs in the Nelson-Ymir area are based on rehabilitation of old mine workings, together with surface exploration. The larger programs included the Yankee-Dundee of Kingsvale Resources Ltd. (155), the Wisconsin (Dutch Creek Resources Ltd.) (151) and the Blackcock mine of O'Hara Resources (156).

To the south, near Salmo, drilling was carried out on the Arlington property (154) owned by Erie Mines Ltd., and Fairbanks Engineering Ltd. completed 640 metres of diamond drilling (surface and underground) on the Silver Dollar (153), targeting the extension of the Lucky Boy vein. An increase of reserves (203 000 tonnes averaging 10.3 grams per tonne gold) in all categories is reported by Gunsteel Resources Incorporated on the Nugget property (152) and a mill is in the planning stage.

The Rossland camp is experiencing renewed activity led by programs of Antelope Resources Limited on the Rossland claims (174) and property of the Rossland Mining School (173). Good intersections have been reported (34.3 grams per tonne gold over 3 metres true width) on the Bluebird-Homestake group of claims but the mineralization may have limited strike length. Mineralization in drill core occurs as massive pyrrhotite or mixed sulphides (arsenopyrite, pyrrhotite, pyrite, chalcopyrite). Nearby, on the Giant property (172), Cominco Ltd. completed 15 holes near the former Red Mountain molybdenum mine, targeting a vein stockwork in a high-level monzonite intrusion. Other work in the Rossland camp in progress or being planned is by Kerr Addison Mines Limited, Sulphurets Gold Corporation and Tobex Resources Ltd.

North of Nelson, GoldPac Investments Ltd. drilled 11 diamond-drill holes on the L.H. property (163) near Northair's Willa development, targeting silicified zones in

Rossland Group volcanic rocks. Underground drilling and development took place at the old Standard mine (165) of Silver Ridge Resources Inc. and the Comstock - Silver Cup property (161) of Dragoon Resources Ltd. Both companies are looking for feed for their mills located at Slocan and Ainsworth respectively.

In the Trout Lake area, Tri County Holdings Ltd. drilled nine surface holes (1100 metres total) to test the quartz-carbonate veins on the Winslow property (168). Results of sampling in surface trenches were more encouraging than drill-core assays.

Mikado Resources Ltd. continued to report good results on the Abbot-Wagner project (167). The Abbot zone was extended to the southeast and a new sulphide zone, called the Greenlaw vein, has been discovered in the Index Formation, 9 metres from the contact with the Badshot Formation, the host of the main silver-lead-zinc replacement deposit. A good road to the portal was completed earlier in the year. Mikado has reopened and sampled a number of other old workings in the area including the Bannockburn, Superior and Red Elephant properties. Results of sampling on the Red Elephant are particularly encouraging. Eleven samples from the shaft returned an average of 76 grams per tonne gold. Two trenches along an oxidized phyllite zone, extending for 137 metres, returned values of 25 grams per tonne gold and 1 per cent copper over 3 metres; and 20.6 grams per tonne gold and 3.3 per cent copper over 1.5 metres. A substantial program has been recommended for 1989. A new vein 1.3 metres wide, containing 40 to 50 per cent combined lead-zinc and 9 grams per tonne gold was discovered on the Superior claim in an area of glacier meltback.

82G

In the Cranbrook area, a number of deep holes were drilled into the Precambrian Aldridge Formation in search of another Sullivan deposit.

At Mark Creek (150) Cominco drilled to 2560 metres. Earlier in the year two deep holes by Cominco on the Vine property (180) were unrewarding. GoldPac Investments drilling (1770 metres) on the Bar property (162) also proved inconclusive. Cominco is preparing another Sullivan play on the Star property (179). Tourmaline is present and work this year involved a UTEM survey and surface mapping.

In what appears to be a new conceptual play, Chapleau Resources Ltd. is drilling altered Cretaceous(?) syenites and a quartz breccia on the Bar property (149) just west of Cranbrook. Associated silicification and argillic alteration are extensive. A 1525-metre drilling program is focused on a triangular zone at the junction of the Cranbrook and Palmer Bar faults. The silicified footwall and narrow quartz carbonate veins are anomalous in gold with the best grab sample to date running 10.6 grams per tonne gold. Mineralization is mostly pyritic but includes chalcopyrite (up to 0.5 per cent copper over 24.5 metres) and minor bornite, sphalerite and galena. Some of the quartz is vuggy and contains coarse pyrite. There is potential in the area for further exploration of intrusive rocks related to zones of structural weakness. British Columbia Geological Survey Branch Open File 1988-14 indicates several intrusive plugs in the area. It is possible that the nearby Moyie River placer deposits have their source in Cretaceous intrusions.

Further to the east, in the extreme southeast corner of the province, Fox Geological Consultants conducted a percussion-drilling program on the Howell Creek and Howe claims (181). Twenty-five percussion holes (3000 metres) were completed to test geochemical anomalies on both sides of Twenty-nine Mile Creek. Anomalous gold values appear to be related to syenite sills, dykes, plugs and small stocks of probable Cretaceous age intruding Paleozoic limestones.

DEVELOPMENTS

Esperanza Explorations Ltd. completed a 9100-metre surface and underground drilling program at the Tillicum Mountain project (171). The focus was on the East Ridge zone, a steeply dipping quartz-skarn zone 24 metres wide, which has been traced for 550 metres along strike. The drill-tested mineralized horizon was extended during the year from a depth of 60 metres to 300 metres in this zone, which lies adjacent to a diorite porphyry sill. The main haulage level was advanced in the Heino-Money zone and additional reserves found below the 2112-metre level. Shrinkage-stope development began above the 2112-metre level. Reserves are quoted as 410 000 tonnes grading 11.7 grams per tonne gold but are expected to increase with new drill-indicated strike extension to the East Ridge zone.

At Northair's Willa project (164) under-ground drilling was focused on the southern extension of the West zone. Proven reserves have been delineated in the West zone and total 415 206 tonnes averaging 6.03 grams per tonne gold and 0.92 per cent copper. Additional geologic reserves (probable and possible) of 220 000 tonnes of similar grade are present. Post-breccia faults in this alkaline porphyry system are postulated as an important geologic control of gold mineralization which is somewhat erratic.

Granges Exploration Ltd. conducted an ambitious exploration and development program on the Dorothy vein on the Goldfinch property (169). This consisted of 1830 metres of drilling, driving a decline of some 475 metres and developing two levels, the first about 400 metres long and the second, below it, about 100 metres. A bulk sample totalling some 7300 tonnes was taken. The quartz vein, arcuate in cross-section, pinches and swells along strike and plunges to the north. Mineralization appears to be cut off by post-mineral faults at a depth of less than 100 metres. One of the parallel veins in the East zone has some potential for continuity and tonnage, however, reserves outlined by present drilling are limited to 130 000 tonnes.

SOUTH-CENTRAL DISTRICT

R.E. Meyers, District Geologist, Kamloops

INTRODUCTION

Mineral exploration in south-central British Columbia continued at a high level during 1988 with the total number of exploration projects approximately the same as in 1987. The most active areas were the Okanagan region, including Vernon and Osoyoos Mining Divisions, the Adams Lake - Kamloops region and the Bridge River district . By year-end there were ten projects at various stages of review in the Mine Development Review Process (Table A1).

TRENDS AND HIGHLIGHTS

Exploration in the Okanagan region during 1988 was stimulated by the discovery of gold-silver mineralization in Tertiary volcanic sequences near Vernon and Okanagan Falls. Property acquisitions increased dra-matically and a number of new operators have been attracted to the district. The newly discovered mineral occurrences and their tectonic settings are being compared with mineral belts in the western United States, resulting in a re-interpretation of previously known deposits and the development of new metallogenic models.

Activity in the Adams Lake region has stabilized following the production decision for the Samatosum deposit by Minnova Inc. The record level of project funding in 1987 helped establish commitment to several high-potential projects that continued to more advanced stages in 1988.

Interest in copper-gold mineralization associated with alkaline porphyries was rekindled by the current increase in copper prices. In the central Nicola belt, the decision by Afton Operating Corporation to develop the Ajax deposit and the purchase of the Similkameen mine by Cassiar Mining Corporation, combined with the generation of new targets such as the Man prospect, north of Princeton, demonstrate the industry's long-term confidence in deposits of this type.

The Bridge River district may soon be returned to the status of a producing mining camp. Two major projects - Corona Corporation's Bralorne mine and the Congress property of Levon Resources Ltd. are in advanced stages of exploration, in anticipation of production decisions.

SUMMARY OF EXPLORATION ACTIVITIES

OKANAGAN

The announcement of high-grade gold intersections in the Brett Main Shear zone by Huntington Resources Ltd. and Corona Corporation precipitated a flurry of staking activity in the Whiteman Creek area, west of Vernon. The Brett claims (182) underwent extensive diamond and percussion drilling on three zones, including a newly discovered showing east of the Main Shear structure. Although the reported intersection of 71.6 metres averaging 69.6 grams per tonne gold was drilled down structure, it indicates the potential in the area for gold mineralization of substantial tenor.

Brican Resources Ltd. has completed a second phase of drilling on the adjacent Gold Star claims (183), which are in the same stratigraphic and structural setting as the Brett. Further to the east, Tournigan Mining Exploration Ltd. drilled the Beau claims (276). Several kilometres south of Whiteman Creek, Lucky 7 Exploration Ltd. drilled targets near the White Elephant mine (184) for mesothermal gold mineralization hosted in Jurassic granodiorite.

East of Vernon, at Lumby, Quinto Mining Corporation began underground exploratory drifting to test and bulk sample the Plateau gold zone (185). The company is continuing with Stage I studies for the Mine Development Review Process and has examined the possibility of importing a mill for processing ore.

Brenda Mines Ltd. began a sampling and drilling program on the nearby Bearcub feldspar property. Feldspar occurs in pegmatite bodies intruding foliated quartz diorite. Elsewhere in the area, QPX Minerals (Minequest Exploration Associates Ltd.) drilled precious metals anomalies associated with argillic alteration zones in Tertiary rhyolitic volcanic rocks on the Creighton property (186). El Paraiso Resources Ltd. carried out drilling on the Top claims (187) near Monashee Pass and Approach Resources Ltd. drilled the Pita claims (188) in the same area. To the east the Mav 1 claims (190) were drilled by S. Barnick. At Lavington, Triple Star Resources Corporation completed underground and surface drilling at the Kalamalka mine (189), another mesothermal lode-gold system in Jurassic dioritic rocks. Further south, near Kelowna, QPDC minerals drill-tested several targets on the Spod Claims (191)

West of Peachland, Placer Dome Inc. and Fairfield Minerals Ltd. jointly operated a major drilling program on the Oka property (192). This is the only major gold-skarn project in the district, outside the Hedley camp.

In the southern Okanagan region near Okanagan Falls, Inco Gold Company continued with an expansive definition-drilling program on the Vault deposit (193), where epithermal gold-quartz mineralization occurs with widespread silicification in Tertiary laharic and epiclastic breccias.

At the nearby Dusty Mac mine (194), Minnova Inc. has undertaken a drilling program to re-evaluate the potential for structurally controlled gold mineralization on the property. Several kilometres to the east, Tigris Minerals Ltd. drill-tested precious metals targets on the Venner property (195), optioned from Corona Corporation. Quartz-carbonate vein mineralization occurs in Tertiary rocks that are possibly correlative with those at the Vault and Dusty Mac. This area will likely see increased exploration activity in the coming year.

West of the Okanagan Valley, near Olalla, Greenlake Resources Ltd. started drilling on the Golden Plug (196). Further north, QPX Minerals (MineQuest) began work on the Astro 1 claim (197). In both areas targets are precious metals associated with volcanic structures in the Tertiary White Lake basin.

In the Fairview camp, near Oliver, the Valhalla Gold Group (Oliver Gold Corporation) has submitted a prospectus to the Mine Development Steering Committee to re-open the historic Fairview (198) and Stemwinder (199) properties. Previously reported reserves approximate 700 000 tonnes, grading 3.7 grams per tonne gold, but current work suggests there is poten-tial for substantially higher tonnages. Mineralization occurs as deformed quartz veins in foliated metasedimentary and metavolcanic rocks of late Paleozoic to early Mesozoic age. Oliver Gold Corporation and associated companies have operated underground and surface exploration programs on the Fairview belt for the past three years.

HEDLEY

In the Hedley district, Corona Corporation has continued to maintain an active exploration program with work on the Nickel Plate (200) and Canty (201) properties. At the Nickel Plate mine approximately 600 metres of drifting was completed to drill-test zones on the Bulldog and Horsefly-Terrier claims, owned by Golden North Resource Corporation. A major surface-drilling program was carried out in the Canty mine area and underground drilling was also completed to test the Eagle's Nest claims (202) optioned from Agio Resources Corporation.

Southeast of Hedley, Chevron Canada Resources Ltd. continued with its Similkameen (Lost Horse) drilling project (203). Candorado Mines Ltd. successfully started up a gold tailings leach operation near the town of Hedley, and a second tailings recovery project (205), initiated nearby by Sumac Ventures Inc., is currently undergoing Stage I Mine Development Review studies.

In an agreement with Noranda Exploration Company, Limited, Total Energold Corporation optioned the Banbury Gold Mines Ltd. property (206). Previous work by Noranda focused on gold-skarn targets and resulted in a reported mineral inventory of approximately 3.6 million tonnes, grading 1.7 grams per tonne gold. In addition to skarn targets in the North Contact zone, Total Energold's work has been directed toward underground development and drilling on the Pine Knot vein system, where proven reserves of about 160 000 tonnes, grading 10.97 grams per tonne gold have been reported.

PRINCETON - TULAMEEN

Cassiar Mining Corporation became a major new player in the Similkameen Mining Division with its purchase of the Copper Mountain - Ingerbelle mine complex from Newmont Mines Ltd. for $10 million. In addition to recalculation of the reserves, Cassiar (Similco Mines Ltd. (207) has also undertaken a re-evaluation of all exploration targets and plans to maintain an on-going exploration program.

In the Tulameen area, west of Princeton, Huldra Silver Inc. continued with underground exploration of the Treasure Mountain silver-lead-zinc deposit (208). Substantial development work and underground drilling were completed, together with limited surface exploration. The vein mineralization occurs in Jurassic and Cretaceous sedimentary rocks. It is sulphide rich and quartz poor, with some exceptionally high silver values. Results of work to date appear to indicate excellent silver-producing potential for this property.

West of Treasure Mountain, Harrisburg-Dayton Resource Corporation began a major assessment of the Summit Camp claim group (209). The vein system on this property is believed to be on the same structural trend as the Treasure Mountain zone.

At Grasshopper Mountain (210), on the Tulameen River, Longreach Resources Ltd. undertook a percussion drilling project to evaluate the bulk-tonnage potential of platinum-group elements in chromite-bearing dunite of the Tulameen ultramafic complex. Work on this property was initiated in 1987 by Newmont Exploration of Canada Ltd. Immediately to the north, Bordeaux Resources Ltd. drill-tested polymetallic sulphide targets on the Rambler claim group (211). Mineralization occurs in chlorite and sericite-altered metavolcanic and metasedimentary rocks of the Nicola Group.

NICOLA VOLCANIC BELT

Near the south end of Missezula Lake, Brican Resources Ltd. completed a comprehensive exploration program on the Man property (212). Targets on this property consist of disseminated copper-gold mineralization associated with alkalic porphyries that intrude Nicola rocks. Several kilometres to the northeast, Placer Dome Inc. and Fairfield Minerals Ltd. continued with trenching and surface surveys on the Elk claims (213), where precious metals in quartz veins are associated with clay-altered and brecciated granitic intrusions.

In the Aspen Grove area, Gerle Gold Ltd. drilled several holes on the Snowflake property (214). Copper and gold mineralization occurs in fractured and brecciated Nicola volcanic rocks that are cut by syenite and gabbro intrusions. North of Merritt, Minnova Inc. tested a number of targets at the Stump Lake property (215). On this property, historically known gold-bearing quartz veins (Enterprise, King William, Jenny Long) occur in sheared and sericitized Nicola tuffs. On the west side of Stump Lake Goldbrae Developments continued drilling the Anderson property (216). To the west, in the Nicola batholith at Swakum Mountain, Corona Corporation drilled the Lucky Mike (Alameda) prospect (217), where copper and magnetite-bearing garnet-skarn mineralization is developed in calcareous Nicola tuffs and sedimentary rocks. Several holes were also drilled by H. Kruse on the adjacent HK property (218).

KAMLOOPS AREA

Much of the exploration effort near Kamloops was directed to copper-gold porphyry targets in the Iron Mask batholith. Afton Operating Corporation (Teck) carried out a definition-drilling program on the Crescent (Comet-Davenport) deposit (220) to confirm reserves prior to production. The company also drilled similar porphyry targets on the Sunny (221) and M & R (222) properties. In the same area, Abermin Corporation completed a substantial program on the Galaxy prospect (223) to the north of Afton's Ajax deposit.

Northwest of Kamloops, QPX Minerals tested epithermal gold targets on the Mara property (227) where mercury, arsenic and antimony anomalies are associated with silicic alteration in Kamloops Group basaltic rocks.

ADAMS LAKE AREA

The area west of Adams Lake was again the focus of several major exploration projects. At mid-year Minnova Inc. and Rea Gold Corporation announced that they would proceed with development and production of the Samatosum silver deposit (228). In addition to extensive diamond drilling, bulk sampling, pit development and mine construction on the Samatosum property, Minnova Inc. continued with a comprehensive assessment of the massive sulphide potential in the Eagle Bay and Fennell stratigraphy on the Bar and Chu Chua claim groups (230) and on the OK property (224) optioned from Algo Resources Ltd. The company is evaluating the possibility of developing the Chua Chua copper deposit as additional feed for the new Samatosum mill. Minnova also tested lode-gold targets on the Gold Hill property (240), while to the north, Kerr Addison Mines Limited completed its work on similar quartz-lode mineralization at the Windpass mine (241).

Earlier in the year Rea Gold Corporation extended its underground drilling and bulk sampling program to include three crosscuts through the L98 lens on the Rea Discovery zone (229). The company also continued work on the CK metasediment-hosted sulphide deposit (244) on the Raft River, northeast of Clearwater.

In the Sinmax Creek area, Esso Minerals Canada has completed drilling programs on the Homestake mine (232), Twin (231) and Cana (237) prospects. All three are massive sulphide targets in Eagle Bay rocks. To the east, at Squaam Bay, Falconbridge Limited continued work on the Bay claims (233) with trenching and surface surveys. Further south, National Resources Exploration Ltd. completed a limited drilling program on the Steep claims (236), a skarn-associated gold prospect.

BP Resources Canada Ltd. tested another massive sulphide prospect on the CM property (239) northeast of Barriere and further east National Resources Exploration drilled the White Rock claims (238) near North Barriere Lake. North of Birch Island, Placer Dome began work on the massive sulphide Nobel property (243). To the south, at Foghorn Mountain (242), Gold Spring Resources Ltd. carried out a substantial drilling program on the Foghorn claims.

East of Adams Lake, on the plateau, Adams Exploraion Ltd. (Spencer Engineering) operated two short drilling programs on the Adam property (235) as part of the Adams Plateau joint venture. The adjacent Lucky Coon prospect (234) was drilled by Sirius Resource Corporation, under an option agreement with Adams Exploration Ltd. and in a separate project Adams Exploration drilled several holes on the Adam 8 claim (225). North of Shuswap Lake, Brican Resources Ltd. drilled several targets on its Scotch Creek property (245), while to the east C. Lowry completed a limited mapping and drilling program on the Silver King and Queen prospect (226).

REVELSTOKE AREA

The J & L deposit (246) was again the only exploration property in the Revelstoke area that saw major work during 1988. Pan American Minerals Corporation completed several hundred metres of drifting and raising to obtain further bulk sample material, as well as attempting to improve the ore reserves. Later in the year the company amalgamated with Equinox Resources Ltd., which has initiated an infill drilling program and expects to undertake major exploration and development work in 1989.

BONAPARTE PLATEAU

Several epithermal and mesothermal precious metals targets were drilled in the Deadman Creek, Vidette Lake and Little Fort areas. Inco Gold began work on the Epi/Gnome (247) property and Booker Gold Explorations Ltd. drilled several holes at the Vidette prospect (248). To the south, the Eastmo claims (249) were drilled by C. Boitard, while east of Bonaparte Lake, Titan Resources Ltd. drilled the 750M property (250).

Northeast of Little Fort, Vital Pacific Resources Ltd. completed a major drilling progam on the Haida Gold prospect (251), and in the same area, Rat Resources Ltd., Geotech Capital Corporation and Lancer Resources Inc., respectively, drilled the Ta Hoola (252), Bogg (253) and HC (254) claim groups. Targets in each area are mesothermal precious metal deposits associated with Upper Triassic Nicola volcanic rocks.

BRIDGE RIVER GOLD CAMP

Exploration for gold-silver vein deposits in the Bralorne and Gold Bridge area in 1988 was highlighted by substantial underground drilling and development projects. In particular, the Bralorne mine (255) was reopened for exploration by Corona Corporation, which has submitted a prospectus for Mine Development Review and is currently carrying out Stage I studies. Preliminary reserves in all categories are estimated to be 292 086 tonnes grading 9.92 grams per tonne gold above Level 1000, plus an additional 673 068 tonnes grading 8.23 grams per tonne below Level 1000.

Levon Resources Ltd. has continued with major exploration and development work on the Congress property (256) and has recently submitted a Stage I report to the Mine Development Steering Committee. The 1988 work was concentrated on the Upper and Lower Howard zones, the Lou decline and on rehabilitation of the Congress adit. Reserves have been estimated at approximately 157 000 tonnes grading 9.15 grams per tonne gold in the measured and indicated categories, plus 294 000 tonnes grading 10.39 grams per tonne in the inferred category. Levon's second major project in the district is at the Love Oil property (264), where an adit was driven, following detailed surface surveys and a trenching program. This property is adjacent to the King zone, which is part of the Bralorne mine complex.

Avino Mines and Resources Ltd. carried out a drilling project on the Minto property (257), east of the Congress workings, and to the south of Carpenter Lake the same company drilled several targets on the Olympic property (258). In the same area, Manhattan Mineral Corporation drilled the Golden SideWalk (259) property, Hoyle Resources Inc. completed a program on the LJ (260) claims and Menika Mining Ltd. continued with a major drill testing of several zones on the Reliance property (261).

Chevron Minerals Ltd. completed its appraisal of the Wayside property (262) with several drill holes and to the west, Hi-Tec Resource Management Ltd. drilled the Mount Allard Resources Ltd. Gun Creek property (263). East of the Gold Bridge area, Westmin Resources Limited carried out a comprehensive trenching and drilling program on the Bristol Gold claims (265).

TYAUGHTON - YALAKOM AREA

In the area north and northeast of the Bridge River camp, epithermal gold targets were tested at several localities. Esso Minerals Canada drilled several holes on the Relay Creek prospect (266) and to the south, Millenium Resources Ltd. began work on the Eva claims (267). South of the Blackdome mine, Lexington Resources Ltd. completed major drilling and trenching work on the Bobcat property (268).

Northwest of Lillooet, near the Fraser River, Chevron Minerals Ltd. tested targets on the Stirrup Creek property (269) and Hi-Tec Resource Management completed work on the Edge claims (270), owned by Brenwest Mining Ltd. Southwest of Lillooet, Kerr Addison Mines Limited completed an appraisal of the Spray and Foam claims (271) near Cayoosh Creek.

SOUTHWESTERN DISTRICT

H.P. Wilton, District Geologist, Victoria

SUMMARY AND OUTLOOK

Exploration activity in the Southwestern District remained strong during 1988, particularly on Vancouver Island. Interest in the Sicker volcanic belt was sustained by the fact that Abermin Corporation on the Lara property and Westmin Resources Limited on the Debbie/Yellow (282) project both went underground to collect bulk samples and to provide access for easier definition of ore reserves. It is anticipated that interest in the Sicker belt will remain strong in 1989. Likewise, the continued success of McAdam Resources Inc. on the Spud Valley project at Zeballos, and of Better Resources Ltd. at Mount Washington has maintained interest in the Tertiary gold potential of those areas. The interest in gold-bearing skarn occurrences, which was restricted mainly to Texada Island in recent years, has revived in the skarn camps of northern Vancouver Island. There has also been some renewed interest in the porphyry copper-gold belt west of the Island Copper mine at Port Hardy. This renewed interest in gold skarns, porphyry copper-gold deposits, and Tertiary gold mineralization, together with the fact that the British Columbia Regional Geochemical Survey covered northern Vancouver Island and the adjacent mainland in 1988, is expected to generate a major increase in mineral exploration on northern Vancouver Island and possibly a staking rush when the RGS data are released in 1989.

On the southwestern mainland, interest in Tertiary gold mineralization related to the Harrison Lake - Lillooet River break remains strong, with reports of new discoveries on the Abo (Harrison Gold) property at Harrison Hot Springs. Minnova Inc. is continuing to enjoy geological and drilling success in its systematic search for volcanogenic massive sulphides in the Britannia roof pendants of Gambier Group volcanic rocks. The volcanic roof pendants in the Coast crystalline belt, particularly those more remote from the Lower Mainland, have been under-explored in recent years, mainly due to their rugged topography and difficult access when compared to the Sicker Group on Vancouver Island. The release of RGS data for NTS 92K in 1989 is expected to stimulate some more aggressive activity in the coastal roof pendants by companies and individuals anxious to break new ground.

Activity on the Queen Charlotte Islands has remained subdued in 1988 as most exploration people with an appreciation of the potential for further discovery of epithermal gold on the islands wait to see how successful City Resources (Canada) Ltd. will be in bringing the Cinola gold project to production.

MINERAL EXPLORATION

Table A3 lists all those exploration and development projects in the Southwest District on which some significant amount of drilling, underground work or surface exploration is known to have been done in 1988. The map numbers listed in the table and shown in brackets after property names in the following text are keyed to the location map, Figure A1.

VANCOUVER ISLAND

As has been the case for several years, the major concentration of large-budget projects in the district is in the Cowichan - Horne Lake uplift of Sicker Group rocks, a package of Paleozoic volcanic and sedimentary rocks extending from Duncan to Port Alberni. West of Chemainus, on the Lara property (274), the joint venture of Abermin Corporation and Laramide Resources Limited completed approximately 600 metres of drifting and raising in the Coronation massive sulphide zone, resulting in the surface stockpiling of a 10 000-tonne bulk sample. The latest published estimate of drill-indicated reserves is 529 000 tonnes averaging 1.01 per cent copper, 1.22 per cent lead, 5.87 per cent zinc, 100.1 grams per tonne silver, and 4.73 grams per tonne gold. Late in the year Laramide Resources purchased Abermin's 65 per cent interest in the property for $2.3 million plus a 10 per cent "profits-of-production" royalty. Laramide, in turn, optioned the property to Minnova Inc. and Minnova has now assumed responsibility for further exploration and development. Minnova has also continued exploration on its extensive Mount Sicker property (273) where a total of 11 059 metres of diamond drilling was completed in 33 holes.

Falconbridge Limited, in a joint venture with Esso Minerals Limited, also continued aggressive exploration of its Chemainus property (275) comprised of two large claim blocks adjoining the east and west sides of the Lara property. The company drilled 11 823 metres in 39 holes. The areas of interest on all three of the above properties occur in a belt of felsic volcanic rocks on strike with the Coronation zone and the old Lenora and Tyee mines on Mount Sicker.

At the northwest end of the Cowichan - Horne Lake uplift, near Port Alberni, the joint venture of Westmin Resources Limited and Nexus Resource Corporation, with Westmin as operator, has committed a budget of $6 million to further explore the large and very promising Debbie property (282), which now includes the centrally located Yellow claim previously explored separately by the Nexus group of companies. Most of the funds have been allocated to driving a 2020-metre tunnel through

McLaughlin Ridge which, when completed early in 1989, will provide underground drilling access to the Mineral Creek and Linda mineralized zones and will allow removal of a bulk sample from the Mineral Creek zone for metallurgical testing. The gold mineralization in the Mineral Creek zone occurs in a quartz-carbonate-altered regional fault and has been traced by surface drilling over a strike length of at least 500 metres and a vertical distance of 700 metres within the fault. The Linda zone consists of a network of gold-quartz veins in the unaltered hangingwall of the Mineral Creek fault. A program of surface diamond drilling, carried out late in the year, included further testing of the 900 zone, located about 1.6 kilometres southwest of the Mineral Creek zone. At the 900 zone, a gold-bearing chert formation overlies a high-grade gold-bearing quartz stockwork. In addition to the underground work and surface drilling, the 1988 program on the Debbie project has been highlighted by detailed and comprehensive geological mapping of the entire 60 square kilometre property by a crew of up to ten geologists.

Elsewhere in the Sicker belt, Nexus Resource Corporation drilled seven holes totalling 1205 metres on the Thistle property (281) where massive sulphides containing gold, silver and copper occur in sheared mafic volcanics. Minnova Inc. drilled seven short holes and Saga Resources Ltd. drilled five holes on the Heather (277) and Snapper (278) properties respectively, in the Nitinat River area northwest of Cowichan Lake.

Cream Silver Mines Limited attracted considerable publicity early in 1988 when it succeeded in drilling four holes totalling 2163 metres to test a geophysical anomaly on its mineral claims at the south end of Buttle Lake in Strathcona Park (284). All of the holes intersected low-grade silver-zinc-copper mineralization in rhyolitic rocks of the Sicker Group, apparently directly on strike with the mineralized stratigraphy the adjacent Myra Creek mine site of Westmin Resources. The company later applied for a resource-use permit to drill more promising anomalies further up the Price Creek valley and in the same favorable stratigraphy. That plan was abandoned when the Provincial Government announced in late summer that no further mineral exploration would be permitted in Strathcona Park outside the Westmin mine property.

One other project in Sicker Group rocks is on the Songbird property (290) near Nanoose Bay where Mingold Resources Inc. carried out a program of trenching and reverse circulation drilling. The target is a series of gold-silver-bearing quartz veins associated with a regional north-trending fault that separates Late Triassic basalts of the Karmutsen Formation from metamorphosed volcanic rocks mapped as part of the Nanoose uplift of the Sicker Group.

The Mount Washington epithermal gold camp west of Courtenay has been the site of three separate drilling programs in 1988. The target in all cases is epithermal gold-silver-copper-arsenic mineralization associated with a Tertiary eruptive centre and localized in flat faults or diatreme-like breccia zones. The major project is centered on the north arm of Mount Washington (293), where Better Resources Ltd. drilled 5392 metres in 67 holes, mainly involving close-spaced definition drilling of the Lakeview-Domineer zone. The latest published reserve estimate on the Lakeview-Domineer zone is 428 000 tonnes grading 8.8 grams gold and 43.5 grams per tonne silver. On the east flank of the mountain, Noranda Exploration Company, Limited, under an option from Better Resources, drilled the Murex breccia (294) where Better has previously intersected 7.2 grams per tonne gold over 12.8 metres and 1.54 per cent copper over 33 metres. In the Divers Lake area southwest of Mount Washington, Noranda drilled eight holes to test coincident soil and geophysical anomalies on a property optioned from Iron River Resources Ltd. (295).

Activity in the Zeballos gold camp has been highlighted again in 1988 by the sustained success of McAdam Resources Inc. at the Spud Valley property (287). Underground exploration was ongoing through 1988 with drifting and sampling of several veins, including the previously-mined Goldfield and Spur veins. Underground diamond drilling totalling 5400 metres was completed earlier in the year. Reserves in all categories are currently estimated by McAdam at 224 000 tonnes grading 14.1 grams per tonne gold, but it is anticipated that reserves can be increased significantly as a result of the current work. The gold-silver mineralization occurs in quartz veins along shears and fractures cutting the Tertiary age Zeballos quartz diorite stock. At the adjoining Privateer mine site (286), New Privateer Mines Ltd. periodically carried out additional underground bulk sampling in preparation for the contemplated completion of a pilot mill. Footwall Exploration Limited has optioned the Hiller-Churchill property (288), a series of variably auriferous magnetite skarn deposits running northwestward from Zeballos to the Artlish River. The property owner, Falconbridge Limited, drilled several of the zones in 1985 and found the most northwesterly deposit, known as A-25, to contain the highest gold values, including one drill intersection of 310 grams per tonne gold across 2 metres. Footwall has gone directly underground on A-25 in 1988 with an adit and a raise into the gold-rich mineralization. Sampling of the underground opening is reported to have confirmed the previous high gold assays.

In the Kennedy River gold camp, International Coast Minerals Corporation is continuing to report significant results from its ongoing drill program on the Bear project (283), which involves re-examination of several old mine workings and showings on the west side of the Kennedy River. Most recently the company has reported some good intersections, including 7.6 grams per tonne gold, 108.7 grams per tonne silver, and 1.71 per cent copper across 2.6 metres, from a gold-sulphide quartz vein called the Shack vein. Prospecting near the Shack vein has discovered a broad area of gold-silver-copper-bearing skarn.

Other gold projects on Vancouver Island include Valentine Mountain (272) north of Sooke where Valentine Gold Corporation, and more recently the property owner, Beau Pre Explorations Ltd., have drilled a total of 19 holes. A small pilot mill was tuned up early in the year and processed 590 tonnes of material from the Discovery zone.

Nuspar Resources Ltd. completed small programs of diamond and rotary drilling to test scattered gold occurrences on its Mount Vernon prospect (276) southwest of Cowichan Lake. At the Contact property (279) near Ahousat on Flores Island, Parallax Development Corporation and Au Resources Limited drilled 18 holes testing coincident geophysical and geochemical anomalies and some narrow quartz-sulphide veins locally carrying very high gold and silver values. Centaur Resources Limited drilled approximately 300 metres at the Head Bay property (280) between Gold River and Tahsis. The drilling was intended to test the Road showing, described as a diorite-hosted shear zone containing narrow, parallel quartz veins with assays up to 201 grams per tonne gold. Late in the year, Dalmation Resources Limited conducted a diamond-drilling program to further test gold-bearing quartz-breccia and quartz-vein occurrences on the Tay property (285) on the Taylor River west of Port Alberni. Defiant Minerals Inc. drilled three holes totalling 244 metres on the Iron Cop property (289) inland from Brooks Peninsula. At the Andy and Joe claims (298) on Storey Creek just east of Nimpkish Lake, Hercules Ventures Inc. drilled 5 holes on a base and precious metal skarn prospect owned by West-Mar Resources Ltd.

Finally, at the northern end of Vancouver Island, there has been renewed interest in the porphyry copper-molybdenum-gold occurrences previously explored by BHP-Utah Mines between the Island Copper mine and Holberg. The huge Expo property (299) which covers 109 square kilometres has been optioned from BHP-Utah Mines by Moraga Resources Ltd. Moraga conducted close-spaced drilling on the Hushamu porphyry deposit where drill indicated mineable reserves of 52.2 million tonnes grading 0.32 per cent copper, 0.008 per cent molybdenum, and 0.41 gram per tonne gold have previously been reported. Crew Natural Resources Ltd. drilled four holes at its Red Dog property (300) which is surrounded by, but separate from the Expo claims. BHP-Utah Mines, under a previous option agreement, is reported to have identified a drill-indicated reserve at the Red Dog of 63.5 million tonnes with an average grade of 0.6 per cent "copper equivalent." At the Realgar property (301) on the San Josef River near Holberg, Formosa Resources Corporation drilled four holes to test a strong arsenic-mercury soil anomaly which surrounds a showing of realgar-cinnabar-orpiment veining in an outcrop of weakly altered limestone. Minor copper and gold values accompany the mineralization.

INNER ISLANDS

Gold exploration on Texada Island took a promising new turn in 1988 when three major companies completed separate option agreements which cover all of the significant claim holdings on the northern half of the island. Echo Bay Mines Limited optioned all of the extensive holdings of Rhyolite Resources Inc. which cover numerous vein and skarn occurrences at the northern end of the island and the gold-bearing ferrocarbonate-altered shear zone on the Angel claims. Freeport-McMoRan Gold Company optioned the holdings of Vananda Gold Limited which include most of the major copper and iron-skarn showings and former mines in a belt crossing the island from Vananda to Gillies Bay. BP Resources Canada Limited optioned a block of claims from local prospectors which surrounds Comet Mountain from Raven Bay to Pocahontas Bay. The three companies cooperated on a joint airborne geophysical survey of all three properties and then they each followed up on the ground with detailed mapping, sampling and other surveys. Only Freeport-McMoRan on the Vananda Gold property (292) followed up with a drilling program in 1988. Drilling in the vicinity of the Little Billie mine workings intersected very significant gold, copper and silver mineralization.

On the Aladdin property (291) at the west end of Lasqueti Island, the joint venture project by H.Q. Minerals Ltd. and Dornoch International Ltd. completed six drill holes totalling 427 metres, targeting shear-controlled, sulphide-rich quartz veins within and close to the old St. Joseph mine workings.

Lone Jack Resources Limited completed a program of drilling and trenching begun in late 1987 to test several gold-silver-bearing copper skarn showings surrounding, but not including, the former Lucky Jim mine in the limestone belt of Quadra Island (297). Also early in the year, Rea Gold Corporation in a joint venture with Verdstone Gold Corporation drilled the final five holes of a 13-hole program begun in December 1987 to test the White Pine gold-silver vein prospect on Thurlow Island (308).

SOUTHWESTERN MAINLAND

The most advanced exploration project in the mainland part of the district is the Harrison Gold project on the Abo property (314) near Harrison Hot Springs, currently owned and operated by Bema International Resources Inc. At the beginning of 1988, the property was being explored by a joint venture among Bema, Abo Resource Corporation and Kerr Addison Mines Limited, with Kerr Addison as operator. Initial work included 2912 metres of surface drilling in 16 holes at the Portal stock. By mid-year, Bema International had acquired a controlling interest of Abo Resource Corporation, had bought out Kerr Addison's 25 per cent interest in the property, and had taken over operation of the project. Bema remapped the entire property, conducted extensive new geophysical and geochemical surveys, and at year-end was engaged in an aggressive drilling program costing $1.25 million and using one underground and two surface drills. Mineralization on the property consists of networks of gold-bearing quartz veins confined within several Tertiary quartz diorite stocks. The latest published reserve estimate by Bema was 4.45 million tonnes averaging 3.4 grams per tonne gold in the Jenner stock alone.

Elsewhere along the regional Harrison Lake break, Universal Trident Industries Inc. has optioned the Doctors Point epithermal gold-quartz vein prospect (311) from Rhyolite Resources Inc. and completed a late-season drilling program consisting of 16 diamond drill holes totalling 1535 metres. Just north of Doctors Point at Five Mile Bay on Harrison Lake, LMX Resources Limited optioned the Toil property (310) from Diamond Resources Incorporated and drilled three holes into a showing of disseminated volcanogenic sulphides. On the Lillooet River opposite Skookumchuck, in a similar geological environment, Symes Resources Ltd. has done some diamond drilling and is continuing with geological and geochemical surveys on the Easy and Jo claims (312) optioned from Hillside Energy Corporation and Corona Corporation.

Minnova Inc. completed diamond-drilling programs on two properties in the Britannia area, targeting polymetallic massive sulphides in Early Cretaceous Gambier Group volcanic rocks. A total of 1446 metres in 11 holes were drilled in mineralized felsic volcanic rocks on the extension of the Britannia shear zone along Furry and Clipper creeks. The Furry Creek property (303) is optioned from Fleck Resources Limited. Minnova also drilled five holes totalling 1823 metres to further explore a volcanogenic massive sulphide zone on a property at the head of Indian River optioned from International Maggie Mines Ltd. (304). One drill intersection on the zone in 1987 gave 10.8 per cent zinc and 4.5 grams per tonne gold across 0.6 metre.

On Callaghan Creek near Whistler, Falconbridge Limited is exploring Northair Mines Limited's former producing Warman mine (307) and surrounding claims. The 1988 program consisted of opening up and resampling the 2800-level adit, drilling five surface holes totalling 1635 metres, and additional geophysical surveys. The Northair mine occurs within a large pendant of Gambier Group rocks and the exploration targets are volcanogenic massive sulphides or associated precious/base metal sulphide veins.

At the north end of Lillooet Lake near Pemberton, Green Lake Resources Ltd. drilled approximately 2000 metres early in the year to further explore a newly discovered pyritic massive sulphide zone in Cadwallader Group volcanic rocks on the Lill property (317). Minnova completed further drilling at its North Fork (316) polymetallic massive sulphide prospect on Cogburn Creek east of Harrison Lake.

Additional gold-oriented projects on the mainland include a limited program of prospecting and underground drilling at the Ashlu mine (306) optioned by Valentine Gold Corporation from Tenquille Resources Inc. and a single drill hole by Skyrocket Exploration and Resources Inc. at its Sky property (309) just west of Stave Lake.

Two drilling projects were underway late in the year just east of the Hozameen fault. Adjacent to the western boundary of Manning Park, Bethlehem Resources Corporation is engaged in an aggressive program of surface and underground drilling, expected to total about 1600 metres, in and around old workings on the AM breccia pipe, one of several mineralized zones on a property known as Giant Copper (313). The goal is to upgrade the gold reserves in the AM zone where reserves of 2.5 million tonnes grading 1.35 per cent copper, 0.033 per cent molybdenum, 24.7 grams per tonne silver, and 0.58 gram per tonne gold have previously been reported. In a very similar geological setting on the Anderson River east of Spuzzum, New Lintex Minerals Ltd. was drilling on its Gilt Creek gold prospect (315).

QUEEN CHARLOTTE ISLANDS

Mineral exploration on the Queen Charlotte Islands remained at a low level in 1988 as the industry waited for decisions about development approval at Cinola and the disposition of mineral properties within the South Moresby federal park reserve. These decisions will significantly affect the climate for future mineral exploration and development on the islands.

Four of the six advanced exploration projects on the islands occur along the trend of the Sandspit fault system where the target is epithermal gold mineralization of the Cinola type. At the Cinola property (320), City Resources (Canada) Limited released results of a preliminary feasibility study reporting mineable reserves of 23.8 million tonnes grading 2.45 grams per tonne gold at a 1.1 grams per tonne cutoff. The proposal is to mine 2.1 million tonnes per year for a mine life of 12 years. In addition to the feasibility study, 1988 work has included further geophysical surveys, metallurgical testing, various environmental studies and 4073 metres of diamond drilling in 52 holes. Some of the drilling was for geotechnical data on the mill site and tailings area and the remainder was exploration drilling in the vicinity of the defined orebody.

The other drilling projects along the Sandspit fault included 440 metres in six holes by City Resources on the Inconspicuous property (321) optioned from Radcliffe Resources Limited and located east of Conspicuous Cone on the northwestern coast of Graham Island. At the More property (322) on the Cumshewa Peninsula of Moresby Island, Cominco Ltd. drilled 34 percussion holes. Mondavi Resources Incorporated diamond drilled six holes in the Baxter Creek zone on its Snow property (323) located just south of Sandspit. At the Lockeport property (319) between Botany and Crescent Inlets, Skygold Resources Ltd. drilled 225 metres in nine holes under an agreement with the property owner, Foundation Resources Limited. The target is also epithermal precious metal mineralization, the most promising showing being a jasperoid zone in limestone adjacent to a fault. On the Eagle and Raven claims (318) just inside the north boundary of the federal park reserve at Klunkwoi Bay, Diamond Resources Incorporated completed three short drill holes testing showings of copper sulphides in amygdules, fractures and small shears in Karmutsen Formation basalt flows.

INDUSTRIAL MINERALS

Two significant industrial mineral properties on the mainland coast received further exploration in 1988 and show promise of early development. At the Lang Bay kaolin property (302) south of Powell River, the joint venture of Fargo Resources Limited and Brenda Mines Limited has completed an airborne geophysical survey and at year-end was engaged in the second major diamond-drilling program of 1988. Most recently reported geological reserves are 6 million tonnes of good quality primary (residual) kaolin and at least an equal volume of secondary (sedimentary) kaolin. At the Mineral Hill wollastonite prospect (305) just north of Sechelt on the Sunshine Coast, owned by Tri-Sil Minerals Inc., the joint venture of Lone Jack Resources Ltd. and Canamin Resources Ltd. carried out additional trenching and 1087 metres of drilling in 16 holes.

Two limestone quarries continued in full operation on Texada Island during 1988 and notices were received to indicate the possible opening of a limestone quarry at Bamberton north of Victoria and a marble quarry at Bonanza Lake on the north end of Vancouver Island. Notice was received of plans to do some test drilling on a feldspar project at Sumas Mountain and to explore a jade occurrence in the Coquihalla River area.

COAL EXPLORATION

Only one significant coal exploration project has been reported on Vancouver Island in 1988. Canadian Occidental Petroleum Ltd. completed eight reverse-circulation drill holes on its coal licences at McIvor Lake west of Campbell River (296).

PLACER MINING

Placer mining is not a major activity in the Southwest District at the present time. Of the 13 notices of placer work received in 1988, five were for placer operations of small to moderate size on the Fraser River between Spuzzum and Hope. Four notices were for placer operations in the Leechtown area of southern Vancouver Island and only one of those, on Old Wolf Creek, could be considered a full-time, productive operation. Notices were also received for isolated operations on each of Bonanza River and Nanaimo River on Vancouver Island, Slesse Creek near Chilliwack, and Lillooet River north of Harrison Lake.

DEVELOPMENT

There are no new mines currently being developed in the Southwest District. The project which is closest to reaching that status is the Cinola gold property on Graham Island. The operator, City Resources (Canada) Limited, has completed a favorable preliminary feasibility study and has submitted a Stage II report to the Mine Development Review Process. If the project receives timely approval-in-principle and a production decision is made by the operator, production could begin in 1990.

The Quinsam coal mine near Campbell River is presently operating on a small scale and development to the full design capacity will depend on improved markets for thermal coal. Other projects that are currently preparing Stage I submissions for approval and which appear to be on track for development in the near future are the Lara polymetallic prospect west of Chemainus and the Spud Valley gold project at Zeballos.

FAME - Financial Assistance for Mineral Exploration Prospectors Assistance Program

By J. Pardy, Prospectors Assistance and Training Officer

INTRODUCTION

The 1988 Prospectors Assistance Program is a FAME-funded, $500 000, one-year program to promote prospecting activity in the province. It is designed to provide part of the risk capital required by prospectors in the search for mineral deposits. Sound, well-conceived prospecting programs are supported with financial assistance. Prospecting targets eligible for assistance include lode and placer deposits of metallic and industrial minerals (except sand and gravel), and coal deposits.

THE PROGRAM

The program was announced in the Budget on March 24, 1988 and information brochures and application forms were released to the public through ministry offices and government agents immediately following. Applications received by May 1 were considered for initial allotment of funds - grants were allocated in the last week of May.

Applications received	205
Grants awarded	137
Maximum grant	$5000
Average grant	$3109

The 205 applications received are down 26 per cent and the 137 grants awarded are down 15 per cent from 1987-88 levels, whereas, the average grant of $3109 is up 21 per cent from the average of $2573 in 1987-88.

Maximum assistance is $5000 per prospector for a pre-approved prospecting program. Fifty per cent of the grant awarded is payable on approval, with the remainder on receipt of a satisfactory prospecting report. Applications for assistance are evaluated on the basis of points awarded for each of the following selection criteria:

Quality and documentation of proposal	45%
Experience and training of applicant	20%
References and recommendations	20%
Financial commitment of applicant	15%

Prospectors are required to submit a summary prospecting report documenting activities and expenditures. Reports must include maps, i.e. location maps, geological sketch maps and sample location maps, and supporting data such as geochemical analyses, assay certificates and geophysical data. Final payment of the grant is made upon approval of the summary prospecting report.

The Prospectors Assistance Program is staffed by a Prospectors Assistance and Training Officer whose duties include assessing grant applications, visiting prospectors in the field to provide technical assistance and to monitor progress, and reviewing summary prospecting reports. Thirty-three per cent of the 137 grant recipients were visited this past prospecting season. Most of the assisted programs are concentrated in the southern half of the province in areas of active exploration and good access.

The percentage of assisted programs by primary target commodity is as follows:

Base metals	1.5 per cent
Industrial minerals	4.5 per cent
Placer gold	17.5 per cent
Base and precious metals	29.0 per cent
Lode gold and silver	47.5 per cent
	100.0 per cent

Changes in primary target commodity from the 1987-88 program include an increase in placer gold programs from 10 per cent to 17.5 per cent and a decrease in hardrock precious metal programs from 57 per cent to 47.5 per cent.

RESULTS TO DATE

121 summary prospecting reports, representing 95 per cent of the total number of active grants, had been received by January 31, 1989. Many of the prospectors report that further work is warranted on showings discovered or worked on this season. A total of fourteen option agreements have been made on these properties; work committments for the upcoming exploration season amount to approximately $300 000 plus additional assessment work commitments with no assigned value.

Tracking work commitments of option agreements generated by prospectors partipating in the grant program may be considered a reasonable, although limited, way of measuring the year by year success of the Prospectors Assistance Program. If measured in this way, the 88-89 program has been successful, but the full impact of prospecting activity of any given year may only be measured by the future developments of properties generated under the program.

A case in point is the Fireweed occurrence located on the west side of Babine lake, which was discovered by a group of prospectors working under the 87-88 Prospectors Assistance Program. Exploration continues on this stratabound silver-gold-zinc-copper-lead property and to date in excess of $1 million dollars has been spent and interesting targets have been defined.

Figures for the 1988-89 program are:

Total prospecting expenditures	$1 130 753
Average expenditure/prospector (including grant)	$8 834
Total grant funds approved	$425 900
Average grant	$3 109
Total prospecting days in the field	4709
Average number prospecting days/ prospector	36.8
Claim units staked	1860
Total work commitments through option agreements	$300 000 +

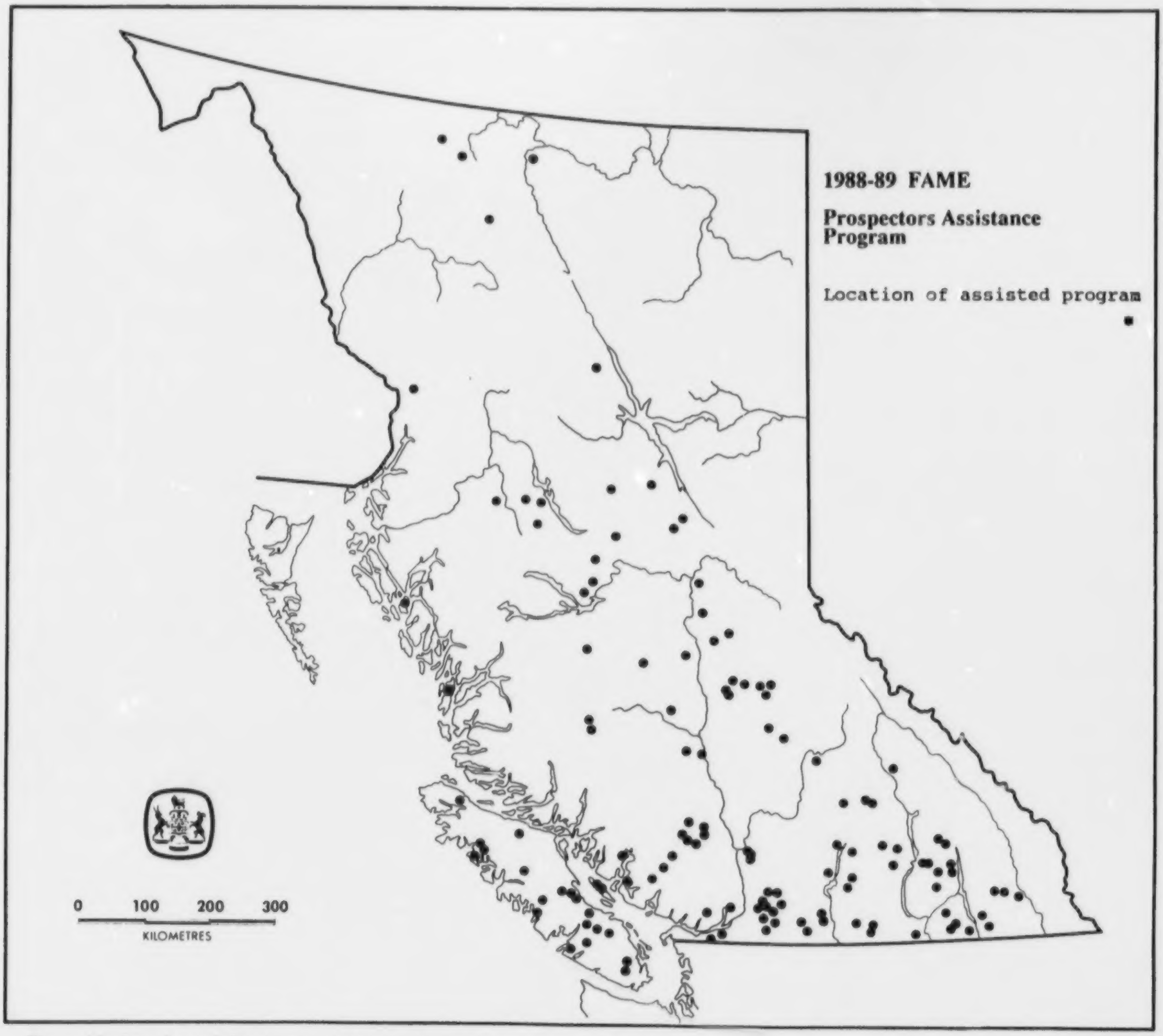
1988-89 FAME
Prospectors Assistance Program
Location of assisted program ●
0
100
200
300
KILOMETRES

Figure A2. Locations of Prospectors Assistance Programs.

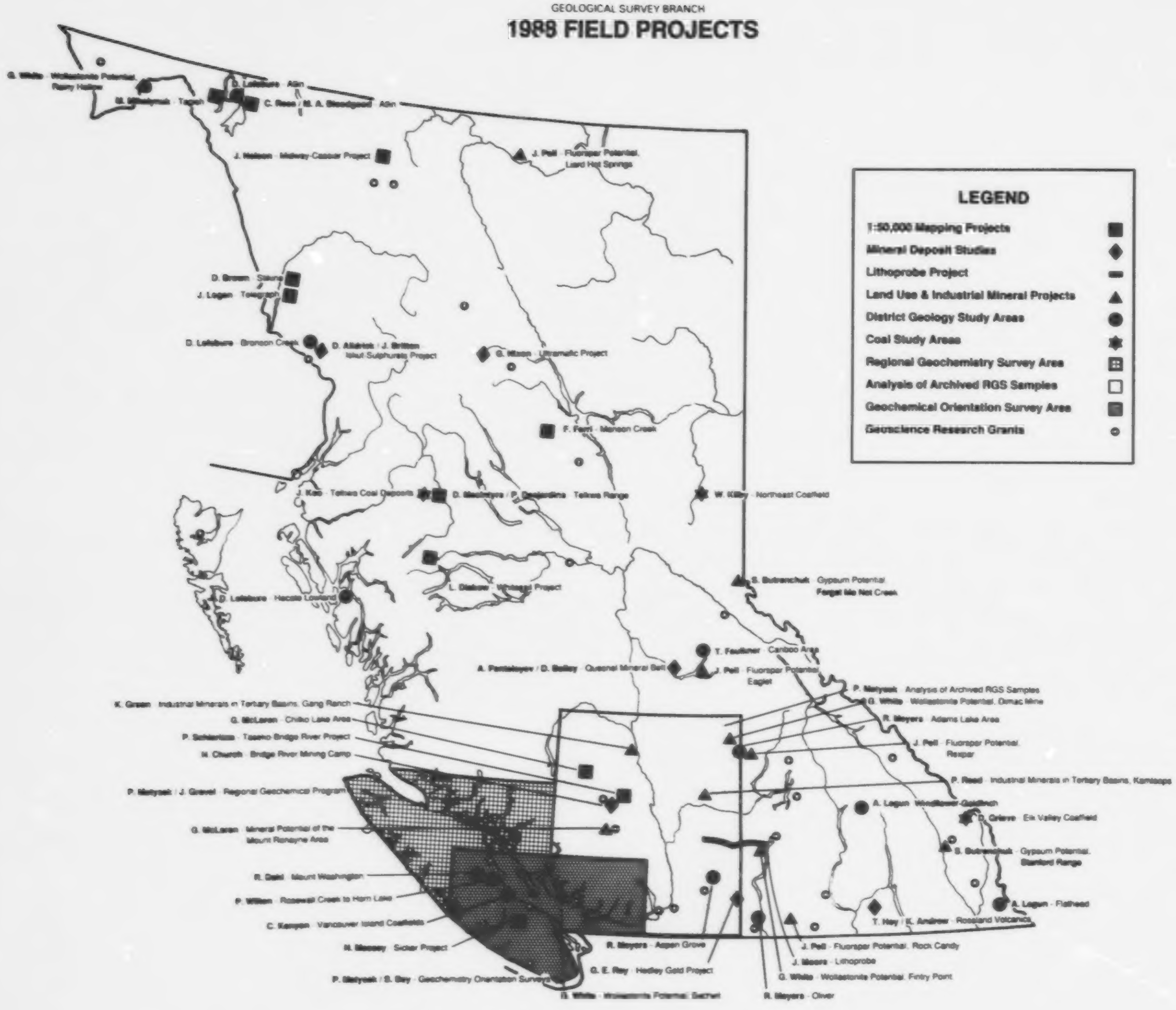
GEOLOGICAL SURVEY BRANCH
1988 FIELD PROJECTS
LEGEND
1:50,000 Mapping Projects ■
Mineral Deposit Studies ◆
Lithoprobe Project ▬
Land Use & Industrial Mineral Projects ▲
District Geology Study Areas ●
Coal Study Areas ✸
Regional Geochemistry Survey Area ⊞
Analysis of Archived RGS Samples ☐
Geochemical Orientation Survey Area ▩
Geoscience Research Grants ○
G. White - Wollastonite Potential, Rainy Hollow
D. Lefebure - Atlin
M. Mihalynuk - Tagish
C. Rees / M. A. Bloodgood - Atlin
J. Nelson - Midway-Cassiar Project
J. Pell - Fluorspar Potential, Liard Hot Springs
D. Brown - Stikine
J. Logan - Telegraph
D. Lefebure - Bronson Creek
D. Alldrick / J. Britton Iskut Sulphurets Project
G. Nixon - Ultramafic Project
F. Ferri - Manson Creek
J. Koo - Telkwa Coal Deposits
D. MacIntyre / P. Desjardins - Telkwa Range
W. Kilby - Northeast Coalfield
L. Diakow - Whitesail Project
D. Lefebure - Hecate Lowland
S. Butrenchuk - Gypsum Potential Forget Me Not Creek
T. Faulkner - Cariboo Area
A. Panteleyev / D. Bailey - Quesnel Mineral Belt
J. Pell - Fluorspar Potential Eaglet
K. Green - Industrial Minerals in Tertiary Basins, Gang Ranch
G. McLaren - Chilko Lake Area
P. Schiarizza - Taseko Bridge River Project
N. Church - Bridge River Mining Camp
P. Matysek / J. Gravel - Regional Geochemical Program
G. McLaren - Mineral Potential of the Mount Ronayne Area
R. Dahl - Mount Washington
P. Wilton - Rosewall Creek to Horn Lake
C. Kenyon - Vancouver Island Coalfields
N. Massey - Sicker Project
P. Matysek / S. Day - Geochemistry Orientation Surveys
G. White - Wollastonite Potential, Sechelt
R. Meyers - Aspen Grove
G. E. Ray - Hedley Gold Project
P. Matysek - Analysis of Archived RGS Samples
G. White - Wollastonite Potential, Dimac Mine
R. Meyers - Adams Lake Area
J. Pell - Fluorspar Potential, Rexspar
P. Read - Industrial Minerals in Tertiary Basins, Kamloops
A. Legun - Windflower-Goldfinch
D. Grieve - Elk Valley Coalfield
S. Butrenchuk - Gypsum Potential, Stanford Range
A. Legun - Flathead
T. Hoy / K. Andrew - Rossland Volcanics
J. Pell - Fluorspar Potential, Rock Candy
J. Moore - Lithoprobe
G. White - Wollastonite Potential, Fintry Point
R. Meyers - Oliver

Figure A3. GSB Field Projects Location Map.

1988 FIELD ACTIVITIES
GEOLOGICAL SURVEY BRANCH

The 1988 field program was the largest in the history of the Geological Survey Branch. Most of the increase was in the area of regional mapping, but a high level of activity was maintained in mineral deposits, land use and coal studies, and industrial mineral programs. New mapping projects were initiated in the Atlin, Stikine and Telegraph Creek map-areas, work was extended in the Chilko Lake area, new coal mapping and evaluation studies were started, and wollastonite, gypsum and fluorite studies begun. The geoscience database was also further enhanced during the year, with improvements to MINFILE, COALFILE, the Assessment Report Files and the Property Files.

MINERAL DEPOSIT STUDIES

In the Mineral Deposits Subsection, district studies of precious metal camps continued to be the main thrust, but projects were given a broad mandate to identify and assess all mineralized environments within the study areas.

Neil Church completed the field component of mineral deposit, fracture analysis and metal zoning studies in the historic Bridge River camp. Andre Panteleyev finished his contribution to the DNAG volume and spent a shortened field season completing the field component of a study of the geology and gold and copper-gold mineral deposits in the Quesnel area. Mapping was extended northward by Dave Bailey and Andre's work filled remaining gaps in the coverage. Apparently the base of the Mesozoic volcanic section interfingers with underlying sediments and there are no major tectonic breaks.

Dani Alldrick headed our largest field crew, mapping favorable stratigraphy westward from the complex Sulphurets gold camp. A synthetic aperture radar (SAR) survey of the area was flown by Energy, Mines and Resources Canada as part of a joint research project that will test the methodology in this rugged terrain.

Trygve Höy, expanding work begun last year in the Rossland-Ymir districts, recognized that the formerly producing Second Relief deposit is a stratabound gold skarn, not a vein deposit, and this observation sparked considerable interest.

Gerry Ray is carrying out office studies leading to publication of bulletins summarizing mineralization in the Coquihalla belt and work done in the Hedley gold-skarn camp. Together with Art Ettlinger, he has also compiled information on precious-metal-enriched skarn deposits in British Columbia; this major paper is currently in preparation.

Metallogenic studies of mafic and ultramafic rocks continued in a largely MDA-funded project led by Graham Nixon. Alaskan-type complexes were mapped and sampled in the Turnagain, Gnat Lakes, Mount Hickman, Menard Creek and Polaris complexes to assess platinum-group element and other mineral potential. Most of the work was on the 80-square-kilometre Polaris complex; chromatite and sulphide occurrences were sampled and detailed geochemistry is planned.

Tom Schroeter continued his investigations of major gold deposits in British Columbia.

REGIONAL MAPPING

The Regional Mapping Subsection produces 1:50 000 geological maps but also is responsible for evaluating mineral potential. The program has both MDA and A-Base funding and was expanded from four to seven projects in 1987. In 1988 the program was further enhanced by the province and three more mapping projects were started - two in the Stikine River area (Jim Logan and Derek Brown) and one in the Atlin district (Mary Anne Bloodgood).

Fieldwork for Nick Massey's Sicker Project, started in 1986, is now complete. His work has helped refine the stratigraphy of the Paleozoic Sicker Group, an important host for polymetallic massive sulphide deposits of the Westmin type. New target areas have been delineated as a result of the mapping; a pillow lava sequence underlying Nitinat Formation is regionally extensive and contains a chert/felsic tuff unit that hosts the 900 zone of the Debbie property.

JoAnne Nelson has been mapping in the Midway-Cassiar area since 1986. She has shown that the Sylvester allochthon, which contains a possible dismembered ophiolite sequence, formed in a marginal basin setting not far removed from ancestral North America. High-angle post-compression fault sets in the area control the distribution of epigenetic vein-gold deposits such as Total Erickson's Vollaug and Jenny veins. New data show that rocks in the hangingwall of the Vollaug vein are Triassic, not Paleozoic.

A new mapping project, with Mary Anne Bloodgood as project leader, was started in the Atlin placer gold camp. In this area the placer deposits are spatially associated with fault zones that cut ultramafic and altered volcanic rocks of the Cache Creek terrane. Recently, lode gold deposits have been discovered in major fault zones and are the focus of considerable exploration activity.

Mitch Mihalynuk continued mapping and geochemical sampling in the Tutshi-Tagish Lakes area, where a number of fault-controlled gold occurrences are being actively explored as a result of last year's program. Mitch and his crew have refined the regional stratigraphy and structure with recognition of a profound unconformity separating the Paleozoic Nisling terrane from younger Mesozoic strata.

Two other new mapping projects were begun north of the Iskut River. Jim Logan and Derek Brown, project leaders for the Telegraph and Stikine projects respectively, focused their work on resolving the stratigraphic and structural setting of the Paleozoic Stikine assemblage and overlying Triassic volcanic rocks. The map area covers part of a belt of syenitic intrusions that lies east of the Coast plutonic complex; the area has been the site of active gold exploration and hosts the Galore Creek porphyry copper-gold deposit.

Don MacIntyre and Pat Desjardins completed mapping in the Babine Range and moved westward across the Telkwa River valley into the Telkwa Range. This work has resulted in a better understanding of the Lower to Middle Jurassic stratigraphy of the Telkwa, Nilkitkwa and Smithers formations. The bimodal volcanics of the Nilkitkwa Formation are favorable hosts for gold and silver-bearing quartz veins. Don and Paulette Tercier have recompiled mapping by Rod Kirkham on Hudson Bay Mountain; the data will be released this year.

In the Whitesail Lake area, mapping by Larry Diakow has resulted in a better understanding of Jurassic, Cretaceous and Tertiary stratigraphic relationships. Of particular significance is the delineation of favorable metallotects for precious metal vein deposits.

In the Manson Creek - Germansen Lake area, Filippo Ferri completed a second year of mapping focusing on the Takla - Slide Mountain - Ingenika - Wolverine complex terrane boundaries. This project has resulted in further subdivision of the Slide Mountain Group and division of the Takla Group into five mapable units. The map area is an old placer gold camp with possible lode gold potential. Listwanitic alteration occurs along the Manson Creek fault zone.

Farther south, in the Taseko Lakes area, Keith Glover and new project leader Paul Schiarizza have refined the tectonic and stratigraphic relationships between the Bridge River terrane and younger Mesozoic rocks. This work has resulted in a clearer understanding of the tectonic history of the area - an important piece in the British Columbia tectonic puzzle. The work has shown that overturned folds and thrust faults in mid-Cretaceous rocks predate transcurrent faulting. Permo-Triassic blueschists in the Bridge River complex, dated at 244±17 Ma (K/Ar) and 217±5 Ma (Rb/Sr), are seen as boulders in Cretaceous conglomerates. Sheeted dykes discovered cutting Bridge River complex add credence to the interpretation of the Shulaps complex as a structurally inverted, dismembered ophiolite sequence.

Keith Glover resigned in May to pursue a consulting career; we extend thanks for his excellent contributions and wish him success in future endeavours.

APPLIED GEOCHEMISTRY

Data released through the Applied Geochemistry Subsection in July, 1988, from samples collected in 1987 in northwestern British Columbia from the Iskut River, Sumdum, Telegraph Creek and Tulsequah map sheets, sparked considerable exploration interest and activity. Ninety copies of the dataset were sold on release day; to date sales total 120 sets and 30 floppy diskettes.

In 1988, crews sampled 2746 sites on northern Vancouver Island; 1657 were moss-mat sediment and water samples, the rest are standard stream sediments and waters. Moss was selected as the best medium on the basis of 1987 orientation surveys. Bismuth has been added to the list of elements to be analysed in these samples because it is a pathfinder for deposits on northern Vancouver Island. We plan to hold the 1989 data release in June.

In 1988, orientation surveys were conducted on southern Vancouver Island and the adjacent mainland, and in the Bowser Basin of north-central British Columbia. The subsection also continued research into improved use of analytical results and the effects of seasonal changes on geochemical responses.

INDUSTRIAL MINERALS

The Industrial Minerals Subsection continued to expand knowledge of industrial mineral commodities in the province in 1988. Field activities this year were concerned with wollastonite, gypsum, fluorite, and the industrial mineral potential of Tertiary basins in the province.

Gary White mapped and sampled seven properties previously reported to contain occurrences of wollastonite. These are the Little Billy mine on Texada Island, Sechelt Penninsula, Silence Lake near Clearwater, Fintry Point west of Kelowna, Horsethief Creek near Windermere, Maid of Erin on Haines Road, and a property on the Skeena River. It is confirmed that the first five are of potentially economic size; CANMET is currently carrying out quality assessment and processing studies of samples.

Steve Butrenchuk spent most of the field season mapping Devonian gypsum-bearing formations in the southeastern corner of the province. Most of the work was between Cranbrook and Windermere in and south of the Stanford Range. He also examined occurrences in Triassic rocks near Forgetmenot Creek north of McBride.

Known fluorite occurrences and fluorine-in-water anomalies from the Regional Geochemical Survey were studied by Jennifer Pell. She mapped the major occurrences - Rock Candy, Eaglet, Rexspar and the area around Liard Hot Springs, and also a newly discovered alkaline complex in the Kechika River area. The alkaline complex apparently has local enrichment in yttrium and rare-earth elements.

Both Peter Read and Kim Green mapped and evaluated mineral potential in intermontane Tertiary basins this summer. Peter concentrated on exposures in the Bonaparte and Deadman River areas; Kim worked near Gang Ranch. Virginia Marcille has begun a thesis at the University of Guelph to evaluate the agricultural potential of zeolites discovered near Princeton in 1986.

The subsection completed and published compilations of talc and pyrophyllite resources, magnetite potential, and garnet-kyanite potential. Compilations of peat and sulphur resources are nearing completion. Native sulphur was known from Devonian evaporites but is also relatively widespread in Triassic evaporites.

Processing studies by CANMET on feldspar samples collected by Gary White in 1987 show that concentrates from several occurrences can meet industry standards. These are Trident Mountain, the Bearcub claims near Lumby, the Hellroaring Creek prospect near Kimberley, and the sands from Scuzzy Creek.

COAL

Fieldwork concentrated on Vancouver Island. Candace Kenyon, with the assistance of Corilane Bickford, continued mapping and sampling in the Comox sub-basin. At the Quinsam mine a very promising program to test the feasibility of coal sample collecting with small diameter drills was carried out by Alex Matheson. This capability will allow the Branch to collect unaltered samples in frontier areas. In the Peace River coalfield, Ward Kilby identified significant coal-rank increases due to frictional heating along a major fault.

Under the coal-quality program a coal-quality catalogue and brochure were prepared for release in 1989. Coal-analysis programs began with the initial emphasis being on sulphur studies, trace element analysis, ash minerology and petrography.

Major publication preparation efforts by the group include Geology and Resources of the Elk Valley Coalfield by David Grieve, and Vitrinite Reflectance Studies in the Peace River Coalfield and Tonsteins and Bentonites in Peace River Coalfield, both by Ward Kilby.

Digital deposit models for the Quinsam and Mount Klappan deposits were under construction by members of the subsection during the year.

MINERAL LAND USE

1988 was an active year in land-use developments in British Columbia, and staff were very busy both in the field and office. The Land Use Subsection carried out two field projects in 1988; in the Taseko Lakes and Pemberton areas. Geological mapping and stream sediment sampling at Taseko Lakes filled a gap in the 1:50 000 data previously gathered by Graham McLaren to the west near Chilko Lake and by Keith Glover and Paul Schiarizza to the east in the Taseko River to Gold Bridge area. Porphyry copper-molybdenum and precious metal vein deposits are known in the area. Significant gold values were detected in talus samples of arsenopyrite veins from a steep cliff face where a diorite intrusive cuts volcanic rocks.

The Tenquille Lake to Owl Mountain area north of Pemberton has a long history of mining activities but is also a popular alpine hiking area and has been considered for recreation area status. Upper Triassic (Cadwallader Group?) rocks and intrusives of the Coast Complex host numerous skarn, vein and porphyry occurrences throughout the area. Mapping in this project outlined an extensive acid volcanic horizon that contains a previously undocumented occurrence of stratabound massive sulphide mineralization, and cherty exhalative rocks. Further evaluation is required to assess the volcanogenic massive sulphide potential of the area and the relationship of the vein and calc-silicate mineralization to this type of mineralization.

In September the decision of government to endorse the recommendations of the Strathcona Park Advisory Committee had a major affect on mineral land use in the province. This decision put an end to further mineral exploration in Strathcona Park. Government intends to arrange fair compensation for existing mineral claims affected by this policy. A further announcement was made in December that there will be no further exploration in Wells Gray, Tweedsmuir, Manning or Kokanee Glacier parks. With the Mineral Tenure Act in place as of August 1988, an inter-ministry agreement governing exploration in recreation areas can be implemented. To this end, the December announcement identified almost 1 million hectares in recreation areas that would be opened to time-limited exploration as of April 15, 1989, while some 225 000 hectares would be closed to any further exploration. Final decisions on the Skagit-Cascades Recreation Areas and the Purcell Wilderness Conservancy are awaiting the outcome of public master planning programs.

Other issues potentially affecting mineral exploration that demand involvement of the Land Use Subsection include a plan to register the Lower Stikine and Dease Rivers as recreation corridors, the creation of forest wilderness areas under the Forest Act, the creation of wildlife management areas under the Wildlife Act, and a variety of other more local site-specific studies.

MINFILE

MINFILE is the Branch's computerized mineral inventory database. The present researching and recording of data on mineral occurrences in the province is jointly funded by the Canada/British Columbia Mineral Development Agreement (1985-1990) and the provincial government. Fifty per cent of the mineral occurrences in the province have now been recoded with fourteen per cent of data for the province now released, this includes data for sixteen 1:250 000-scale map sheets.

Computer upgrades and redesign, during 1988, included the use of Environmental Sciences Limited's QUICKMap, a computer graphics program, to generate location maps and near year-end work was started on programming a hard copy reporting facility for the MINFILE/pc search program.

PROPERTY FILE/REGIONAL FILE

Property File is the hard copy backup to MINFILE. It contains the original data keyed into MINFILE, miscellaneous published and unpublished reports, maps, press clippings, air photos, etc. Regional File contains similar data with its filing structure based on the NTS rather than on specific MINFILE numbers. Upgrading and maintenance of both systems is jointly funded by the Canada/British Columbia Mineral Development Agreement (1985-1990).

Progress throughout the year on Property File included completion of the reorganization from an NTS-based structure to one based on the MINFILE numbering system combined with a two-digit subject code. Every map, airphoto, report and prospectus that existed in the NTS-based structure has been appropriately labeled and filed. A substantial amount of material donated from various sources was incorporated into Property File. Work began near year-end on the filing structure for the Regional File with planned transfer and integration of the material to occur in 1989-1990. Contributions of historical data and technical information on mineral occurrences which may be added to Property File are encouraged. Property File is open to public viewing during normal business hours in Victoria.

ARIS

ARIS is the Branch's new computerized assessment report indexing system which began development in late 1987. It performs various administrative tasks for the section such as issuing letters, providing assistance in tracking progress on various assessment reports submitted by industry, and producing summary reports on assessment report filings.

The data entry facility was completed in April and an on-line inquiries system was operational by July. The on-line inquiries available for in-house users include queries by claim name, owner/operator/author name, property name, Mining Division, NTS mapsheet, MINFILE number, and latitude/longitude.

PART B

GEOLOGICAL DESCRIPTION
OF
SELECTED PROPERTIES

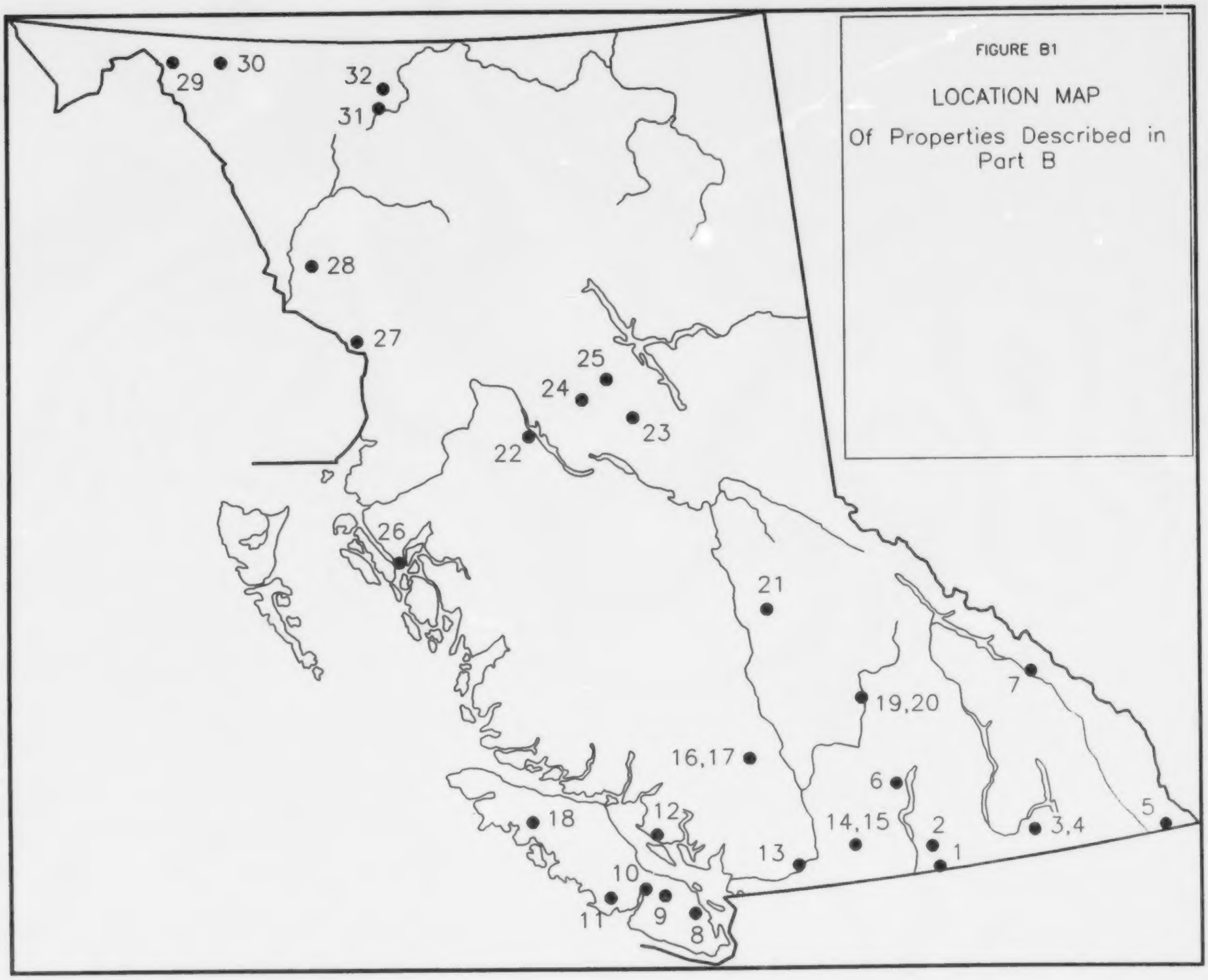
FIGURE B1
LOCATION MAP
Of Properties Described in Part B
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Figure B1. Location of Properties described in Part B. Numbers are keyed to individual papers.

PENTICTON 82E

STANDARD MINE (082ESW091)

(Fig. B1, No. 01)

By W.A. Taylor

LOCATION:	Lat. 49°12′ Long. 119°35′ 82E/4E OSOYOOS MINING DIVISION. 3 kilometres northwest of Oliver and 45 kilometres south of Penticton. Elevations on the property range from 305 to 790 metres.
CLAIM:	SNOWFLAKE.
ACCESS:	At 2.8 kilometres north of Oliver along Fairview - White Lake road a graded dirt track leads to the east. The No. 2 adit is approximately 900 metres along this road.
OWNER:	Island Technologies Corporation (formerly Vermilion Resources Inc.)
OPERATOR:	SEARCHLIGHT RESOURCES LTD. (most recent) for MILLENNIUM RESOURCES INC.
COMMODITIES:	Gold, silver, lead, zinc.

HISTORY

The earliest documented work on the Standard property (Figure B-1-1) was in 1934 when an open cut 12 metres long exposed a quartz vein. The work was done for A.M. Whiteside, a Vancouver syndicator. The vein was traced for 60 metres and other open cuts and exploratory shafts were excavated. The Standard lay dormant until late 1961 when Continental Consolidated Mines Ltd. and Norex Mines Ltd. drove the main No. 2 adit and most of the present workings. The Standard mine is reported to have produced 1876 tonnes of ore, (from 1934 to 1962) yielding 17 511 grams of gold, 137 786 grams of silver, 2 888 kilograms of lead and 1933 kilograms of zinc but it has been suggested that actual production figures may have been a little higher (Coombes, 1987). Production ceased in 1962 when the grade of material shipped was consistently less than 8.6 grams per tonne gold (Coombes, 1987). The Empire claim, 460 metres to the east, produced 586 tonnes of ore between 1936 and 1942, yielding 4385 grams of gold and 45 068 grams of silver.

The Standard property was restaked as the Snowflake in the late 1970s by Mr. W. Hegan who

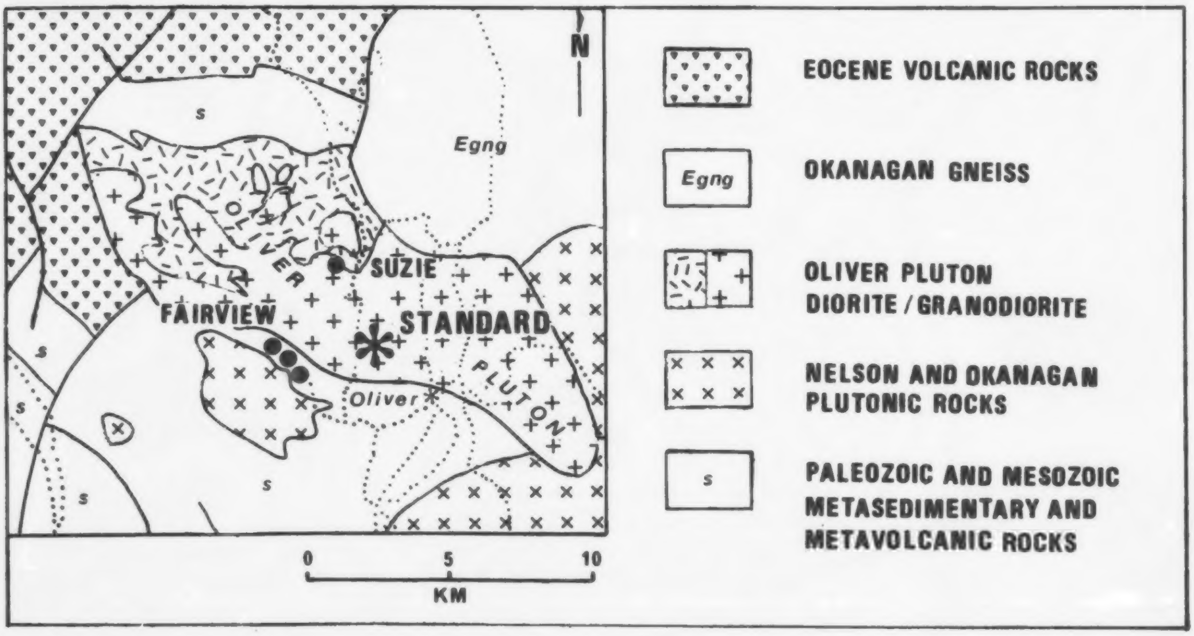
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Figure B-1-1. Geological setting of the Standard property (modified from Tempelman-Kluit, 1989).

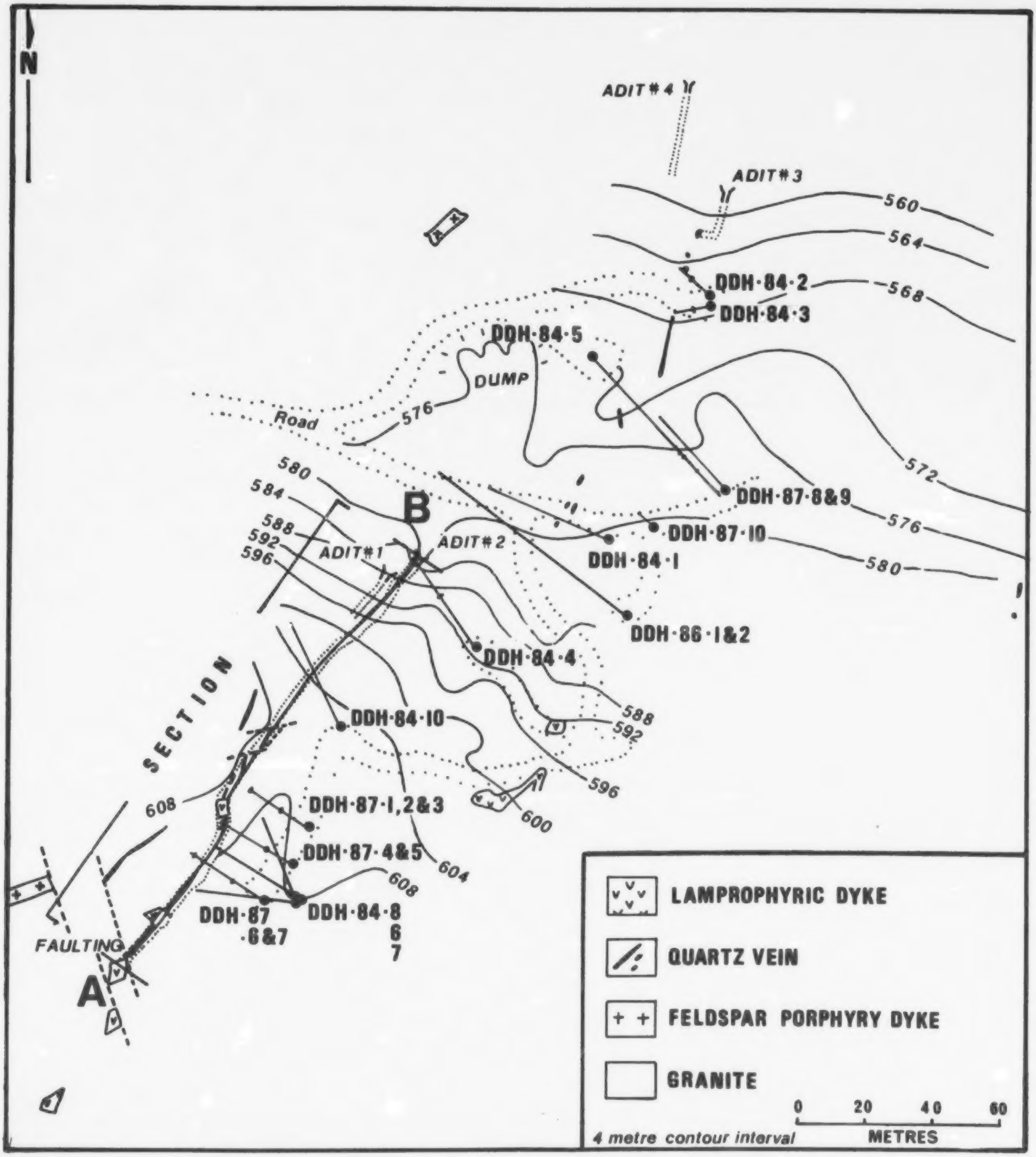
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Figure B-1-2. Sketch map illustrating geology of the Standard mine, showing mineralization in underground workings and in drill holes projected to surface. Not an actual representation of the surface geology (modified from Coombes, 1987 and Sookochoff, 1984).

drove a fourth exploratory adit in 1978. Vermilion Resources Inc. acquired the property in 1983 and carried out a two-phase NQ-diamond-drilling program in 1984. The best intersection during the first phase was in hole 84-5 which intersected mineralization grading 8.4 grams gold and 97.3 grams silver per tonne over 1 metre (Sookochoff, 1984). Five NQ-holes were drilled totaling 262 metres. The second phase of drilling, by Dolmage, Campbell and Associates Ltd., totalled 330 metres in five holes, available data from this second phase are incomplete. Silver Saddle Mines Ltd. optioned the property in 1986 and drilled a total of 187 metres in two BQ-holes, the results of which were not released. Millennium Resources Inc. optioned the property in 1987 and contracted Searchlight Resources Ltd. to drill ten BQ-holes totalling 610 metres. The best intercept was obtained in hole 87-5, and assayed 5.55 grams gold and 51.1 grams silver per tonne over 81 centimetres. The positions of all known drill holes are shown in Figure B-1-2. Various VLF-EM surveys have also been conducted on the property since 1984 (Lenard, 1984; Peto, 1985).

GEOLOGICAL SETTING

The Standard deposit (Figure B-1-1) is hosted by granites and granodiorites previously included in the Valhalla complex of Jura-Cretaceous age (Little, 1961). Massive to foliated middle Jurassic granodiorites, quartz diorites and granites of the Nelson plutonic complex occur to the southwest and northeast (Little, 1961; Wheeler, 1987). They have recently been grouped together as part of the Oliver plutonic complex (Tempelman-Kluit, 1989). The pluton is fault bounded and extends over an area of 20 kilometres by 5 kilometres.

The historic Fairview gold camp lies south of the Oliver pluton and north of the Fairview granodiorite. Here mineralization is hosted by quartzites and argillites of the pre-Jurassic Kobau Group. The northwest to west-northwest-trending penetrative fabric in the country rocks has also affected the mineralized veins (Meyers, 1988).

About 2.2 kilometres northwest of the Standard mine, the Suzie mine, also a past producer of gold and silver, is centred on a north-northwest-trending fissure vein within the Oliver pluton. About 500 metres east of the Standard mine, the Empire working lies on a similar northwest-trending vein system.

PROPERTY GEOLOGY

The geology of the Standard property, shown in Figure B-1-2, is compiled from underground mapping and relevant sections of drill holes projected to surface. The dominant host rock is a leucocratic biotite-granite which is locally garnetiferous (Arnott, 1963). Feldspar porphyry dykes outcrop to the northwest of the Standard vein, but their relationship with the veining is uncertain. Of the four adits on the property, the No. 2 adit has had the most development. A porphyritic augite lamprophyre dyke cuts the quartz

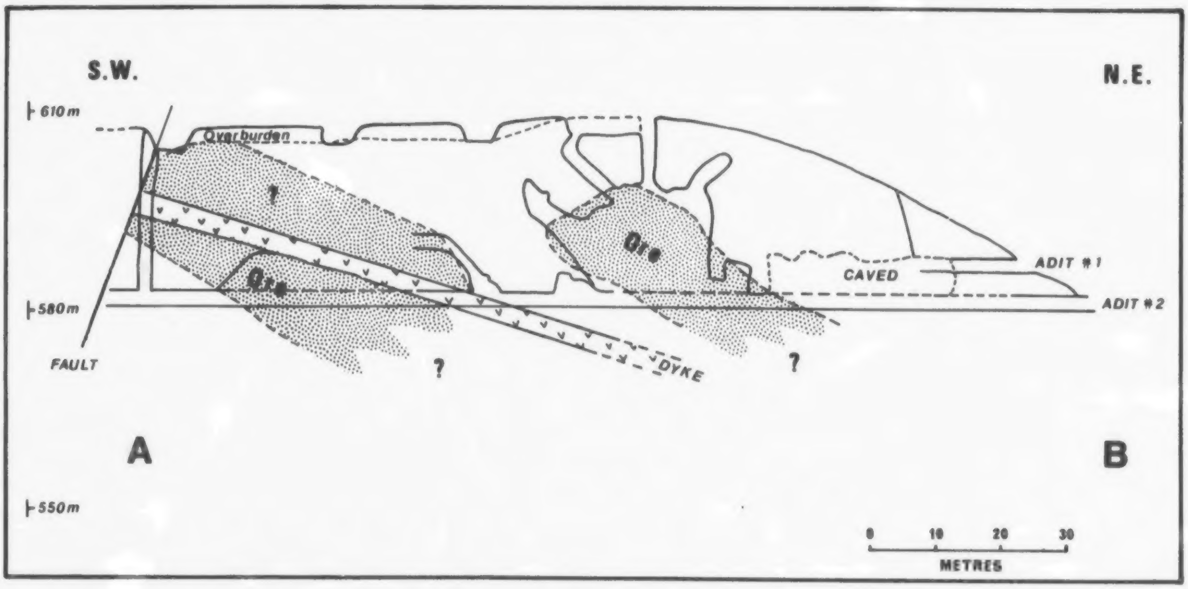

Figure B-1-3. Longitudinal section, of the main Standard mine workings looking northwest (modified from Sookochoff, 1984).

vein near the middle of the adit and a similar dyke cuts the vein further to the southwest along the drift. Most dykes are post tectonic. At 108 metres from the portal the granite is cut by a fault, which is locked by a later dyke. Faults are oriented subparallel and oblique to the veins.

MINERALIZATION

The main quartz vein has an average strike of north 40 degrees east and dips between 65 and 85 degrees southeast. It has been traced underground for more than 150 metres (Figure B-1-3). The vein pinches and swells throughout much of its length and, in places, attains a width of 1.8 metres. Many parts of the vein are barren but some areas contain up to 5 per cent sulphides, usually pyrite (Skerl, 1962). Other minerals, in order of decreasing abundance, include chalcopyrite, galena, sphalerite, tetrahedrite and specks of the silver telluride, hessite. They tend to occur in pockets or as fracture fillings (Arnott, 1963). Gold mineralization is associated with sulphide-rich ore shoots and argillic fault gouge up to 6 centimetres wide, on the footwall of the vein (Peto, 1985). Gold apparently is also associated with galena and sphalerite (Sookochoff, 19849).

ALTERATION

Minor potassic alteration has been observed in mine workings and in drill core. Alteration is stronger north of the main vein where closely spaced faults and shears offset parallel veins. Coombes (1987) interprets this as evidence of post-mineralization circulation of fluids within the fracture system, that is possibly unrelated to the main mineralizing event. At surface potassic and sericitic alteration are present up to 1.25 metres from the footwall of the vein, but grade sharply outwards into unaltered granite.

CONCLUSIONS

Precious metal mineralization in the Standard mine is associated with base metal sulphides in quartz veins filling open fractures and in gouge on the footwall of the main vein. The northeast strike of the veins is atypical in the district; ore-bearing veins in the nearby Fairview camp generally strike northwest. Northeast trends should not be overlooked elsewhere in the Oliver pluton. Interesting also is the fact that one of the deeper intersections of the Standard vein (DDH 87-5) contained the best values in gold and silver. Clearly potential still exists at depth at the Standard mine itself.

ACKNOWLEDGMENTS

The helpful and enthusiastic assistance of Todd Hubner during the property visit and editing and supervision by Richard Myers, District Geologist, Kamloops, are much appreciated.

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VAULT (82ESW173)

(Fig. B1, No. 02)

By R.E. Meyers

LOCATION:	Lat. 49°22′ Long. 11[illegible]°37′ 82E/5E OSOYOOS MINING DIVISION. 3 kilometres northwest of Okanagan Falls.
CLAIMS:	VAULT 1-7.
ACCESS:	Via White Lake road from Highway 97, approximately 3 kilometres north of Okanagan Falls. Several all-weather logging roads access the central part of the claims.
OWNERS:	Canadian Nickel Company Limited, Seven Mile High Resources Inc.
OPERATOR:	INCO GOLD MANAGEMENT INC.
COMMODITIES:	Gold, silver.

PRELIMINARY ECONOMIC GEOLOGY OF THE VAULT GOLD DEPOSIT

INTRODUCTION

The relatively recent discovery of gold-silver mineralization on the Vault claims and other properties in the region has helped to re-establish exploration for precious metals in the Tertiary rocks of southern British Columbia. These rocks, once regarded as "cover rock", are now recognized as being part of a Tertiary epithermal province, with excellent potential for hotspring-type gold mineralization.

EXPLORATION HISTORY

Information on mineralization in the Okanagan Falls area was scant prior to the discovery of the Dusty Mac deposit in the late 1960s. Quartz veining and gossanous alteration were noted in the area of the Vault claims by Church (1969) and using this information, Murray Morrison, a geologist from Kelowna, staked the Vault 1 claim in 1982. Riocanex Ltd. optioned the property in the same year and staked the Vault 2-5 claims. The company completed geological and geochemical surveys on the Discovery area and outlined an elongate silicified zone weakly anomalous in gold, arsenic, mercury and antimony. The zone was tested with four percussion-drill holes, totalling 295 metres. In 1983 Riocanex diamond drilled an additional four holes totalling 632 metres, but results were discouraging and the option was dropped.

The following year Dome Exploration Ltd. optioned the property and completed an induced polarization survey in the Discovery area. An anomaly was outlined coincident with the geochemical anomaly and parallel to a fault presumed to represent the contact between the Marron and Lower Marama formations. Dome tested the anomaly with seven diamond-drill holes totalling 559 metres, again with discouraging results and the property was returned to the owner (Oddy, 1984).

Seven Mile High Resources Inc. optioned the claims in 1985 and carried out geological, geochemical, magnetometer and VLF-EM surveys over the Vault 1 and 4 claims and followed up with four percussion-drill holes totalling 491 metres, which did not intersect significant new mineralization (Wilmot 1984). Results generally indicate that anomalous gold values are concentrated in porous lower Marama tuffs, above the inferred Marron fault contact and below upper Marama dacites.

CURRENT WORK

Canadian Nickel Company Limited optioned the Vault claims from Seven Mile High Resources in May 1986 and completed mapping and topographic surveys. This was followed with two deep diamond-drill holes totalling 779 metres, the second of which intersected anomalous gold values over approximately 82 metres from 358 to 440 metres depth. The zone includes intersections of 7.1 grams per tonne gold over 1.7 metres and 6.7 grams per tonne over 1.5 metres.

Since the 1986 discovery the company has continued with major diamond-drilling programs. In 1987, 5411 metres were drilled in 21 holes and in 1988, 49 drill holes were completed for a total of 18 315 metres. The company has drilled 72 holes to date, for a total of 24 505 metres. Another major drilling program is planned for 1989.

REGIONAL GEOLOGY

The Vault claims lie within the eastern part of the White Lake basin, a thick accumulation of Eocene volcanic rocks, interlayered with clastic sedimentary rocks which are largely of volcanic derivation (Church,

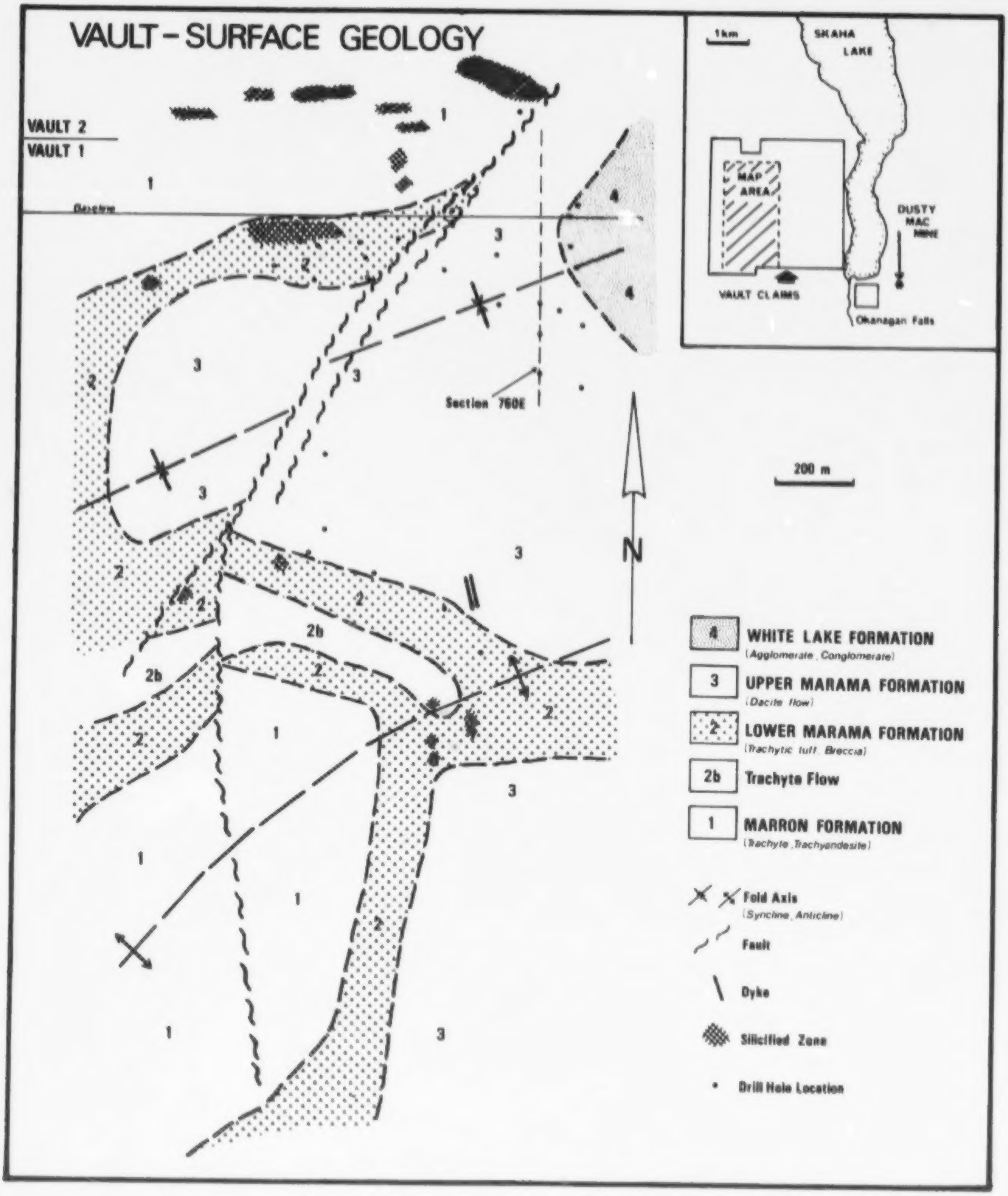
VAULT - SURFACE GEOLOGY
VAULT 2
VAULT 1
1
2
2b
3
4
Section 760E
N
200 m
1km
SKAHA
LAKE
MAP
AREA
VAULT CLAIMS
DUSTY
MAC
MINE
Okanagan Falls
4 WHITE LAKE FORMATION
(Agglomerate, Conglomerate)
3 UPPER MARAMA FORMATION
(Dacite flow)
2 LOWER MARAMA FORMATION
(Trachytic tuff, Breccia)
2b Trachyte Flow
1 MARRON FORMATION
(Trachyte, Trachyandesite)
Fold Axis
(Syncline, Anticline)
Fault
Dyke
Silicified Zone
Drill Hole Location

Figure B-2-1 . General geology of the west-central part of the Vault claims (simplified from Groeneweg; 1987, 1988).

1973, 1979). The Eocene rocks rest unconformably on Early to Middle Mesozoic metavolcanic and metasedimentary rocks and Middle to Late Mesozoic granitic rocks. The White Lake sequence comprises an outlier that is correlated with similar Eocene sequences in the region (Church, 1982; Tempelman-Kluit, 1989). They are interpreted to be remnants of an older continuous, southern Okanagan depositional basin (Parrish *et al.*, 1988). Hora and Church (1986) noted a variety of zeolite minerals in Tertiary rocks of the region, suggesting that they originated either from low-grade metamorphism or from late-stage volcanic processes.

PROPERTY GEOLOGY

The stratigraphic sequence on the Vault claims (Figure B-2-1) includes the Marron Formation at the base, overlain by the Marama Formation, with the White Lake Formation at the top. The rocks are gently folded about northeasterly trending synclinal and anticlinal axes and offset by northerly and northeasterly trending faults which form a step-like down-dropped pattern. Precious metal mineralization is related to an east-west oriented fracture system confined largely to the lower Marama Formation and crossing the north-central part of the claim block.

The section of Marron Formation underlying the property, which has been designated the Kitley Lake member (Church 1979), consists of purplish brown to grey, fine-grained plagioclase-porphyritic lavas of trachyte to trachyandesite composition (Plate B-2-1). The upper contact of this unit is strongly weathered and may represent the eroded angular unconformity described by Church (1973).

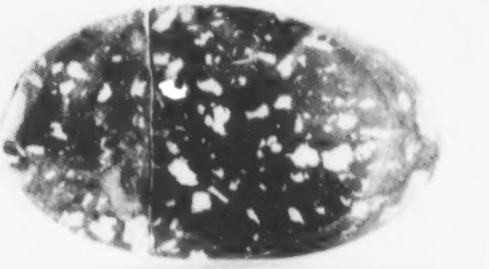

Plate B-2-1. Marron Formation: Trachytic porphyry flow, with glomeroporphyritic alkali feldspar phenocrysts. (Photo: T.G. Schroeter.)

The overlying Marama Formation is the favourable host unit in which gold-silver mineralization occurs, and is subdivided into upper and lower sections. At the base of the lower Marama is a coarse pyroclastic and/or epiclastic unit, which is mapped elsewhere by Church as a conglomerate. The section grades upward into a crudely alternating sequence of coarse and fine-grained tuffaceous and fragmental rocks (Plate B-2-2), believed to reflect repeated explosive events (Groeneweg, 1987, 1988). Much of this section varies from lapilli to ash tuff, with coarse fragments and massive fine-grained trachyte porphyry flows intercalated with thin laminated mudstone and sandstone. The flows display abundant, irregular clay and zeolite(?)-filled amygdules. In some areas the tuff is broken into larger subrounded clasts that are probably the result of epiclastic processes. At other localities the breccia has a random chaotic appearance, characteristic of laharic slumping or debris flow. Church (1979) suggested that some trachytic clasts in the lower Marama Formation are derived from the Marron.

Plate B-2-2. Lower Marama Formation: Agglomeratic breccia with subangular and subrounded porphyritic and amygdaloidal volcanic fragments in a gritty lapilli-ash matrix. Veinlet is filled with black and white silica and has been offset by subsequent brecciation. (Photo: T.G. Schroeter.)

The upper Marama is a massive, aphanitic dacite flow unit that is plagioclase porphyritic, with alkali feldspar, minor hornblende and biotite. Some outcrops display flow banding and platy brittle fracture. Sheeted dacite feeder dykes, averaging about 1 metre in width, intrude the dacite in the central part of the property.

At the top of the Vault sequence the White Lake Formation consists of coarse agglomeratic and laharic rocks interlayered with andesitic and trachytic flows, conglomerates and carbonaceous mudstones. Church (1973) defined the unit as being derived entirely from underlying Eocene rocks, with no pre-Tertiary components. Groeneweg (1987) suggested that the unit may have formed as infilling debris, following caldera collapse. The angularity of most fragmental material in the unit indicates a relatively close provenance.

ALTERATION

Gossanous silicified zones (Plate B-2-3) were the first precious metals targets identified on the Vault property (McClintock, 1982). The prime area of intense silicification and stockwork veining is an elongate zone parallel to the east-west baseline (Figure B-2-1). It was originally traced on surface for 350 metres in the Discovery area and is coincident with geochemical and geophysical anomalies. Drill information indicates that the zone occurs above the Marron/lower Marama contact and the original zone is on the west side of the area currently being explored. Recent exploration has extended the zone of silicification and veining discontinuously for about 900 metres along strike.

In drill core, the intensity of silicification appears to increase with the frequency of quartz veining. Within the area of mineralization, silicification is pervasive and the replacement of wallrock by chalcedonic quartz is locally evident. Clay alteration is common adjacent to fault zones and is particularly notable as feldspar alteration in trachytic flows and breccias. Minor muscovite and green micaceous minerals are also present in altered sections. Hematite, calcite and chlorite alteration are poorly developed in all units and are usually confined to fractures, vein margins and breccia matrix or fragments. Calcite veinlets usually crosscut silicic alteration and veining.

Plate B-2-3. Lower Marama Formation: Surface samples from the Discovery area; Left - brecciated, weakly banded quartz vein material; Right - silicified fragments in volcanic breccia. Note black and grey massive and banded chalcedonic silica replacement of fragments. (Photo: T.G. Schroeter.)

MINERALIZATION

The main area of interest is in the north-central part of the property, on the north limb of a northeast-trending syncline (Figure B-2-1). Gold-silver mineralization is associated with a discontinuous, east-trending, steeply dipping quartz vein system. Veining is concentrated primarily in lower Marama rocks, where the porosity and permeability of the volcanic breccias and tuffs are highest, although a few minor gold-bearing veins have been encountered in the Marron and upper Marama formations. Intense silicification and weak, very fine grained pyritization accompanies much of the mineralization.

Near-surface mineralization, where silicification is less intense, is generally anomalous in precious metals, but below an estimated economic grade of less than 3 grams per tonne gold. With increased depth, silicification becomes more intense and the average grade increases to the 5-10 grams per tonne range, in places over substantial widths (Figures B-2-2, 3). Gold and silver are typically not visible to the naked eye, but are considered likely to occur as native elements, or possibly as electrum. Silver:gold ratios in the mineralized zones are highly variable, but average 9.8:1, based on calculated ratios from 210 reported drill-core intervals. The ratios tend to be lowest with higher gold values.

Veins in the main mineralized zone have typical epithermal textures and mineral assemblages. Finely banded and bladed chalcedonic quartz, ankeritic carbonate and minor alkali feldspar (adularia?) are the main vein components. Veins range in size from fine irregular anastomosing veinlets a few millimetres thick, to larger veins about 10 centimetres wide. Some exceptionally large veins are up to about 30 centimetres in width. They commonly display multistage growth textures (Plate B-2-4), such as scalloped, colloform banding, bladed cockscomb intergrowths and drusy cavities. Where the vein minerals occur as breccia matrix, some breccia fragments are rimmed with finely banded quartz (Plate B-2-5) and occur in a matrix of

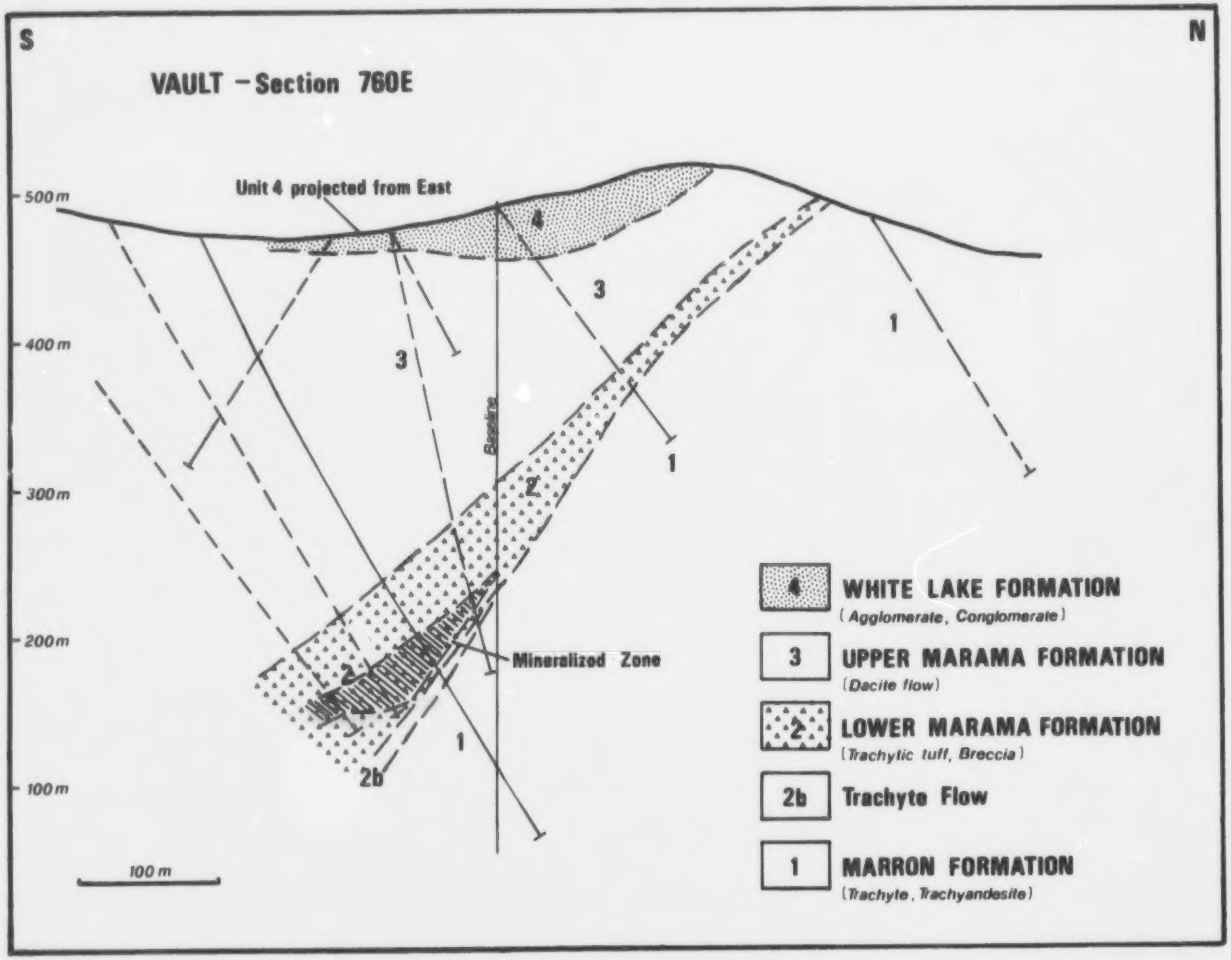
S
N
VAULT – Section 760E
Unit 4 projected from East
500 m
400 m
300 m
200 m
100 m
4
3
3
2
1
1
1
2b
Baseline
Mineralized Zone
100 m
4 WHITE LAKE FORMATION
(Agglomerate, Conglomerate)
3 UPPER MARAMA FORMATION
(Dacite flow)
2 LOWER MARAMA FORMATION
(Trachytic tuff, Breccia)
2b Trachyte Flow
1 MARRON FORMATION
(Trachyte, Trachyandesite)

Figure B-2-2. Vault section 760E, looking west, showing stratigraphy and mineralized zone on the north limb of a northeast-trending syncline (simplified from Groeneweg; 1987, 1988).

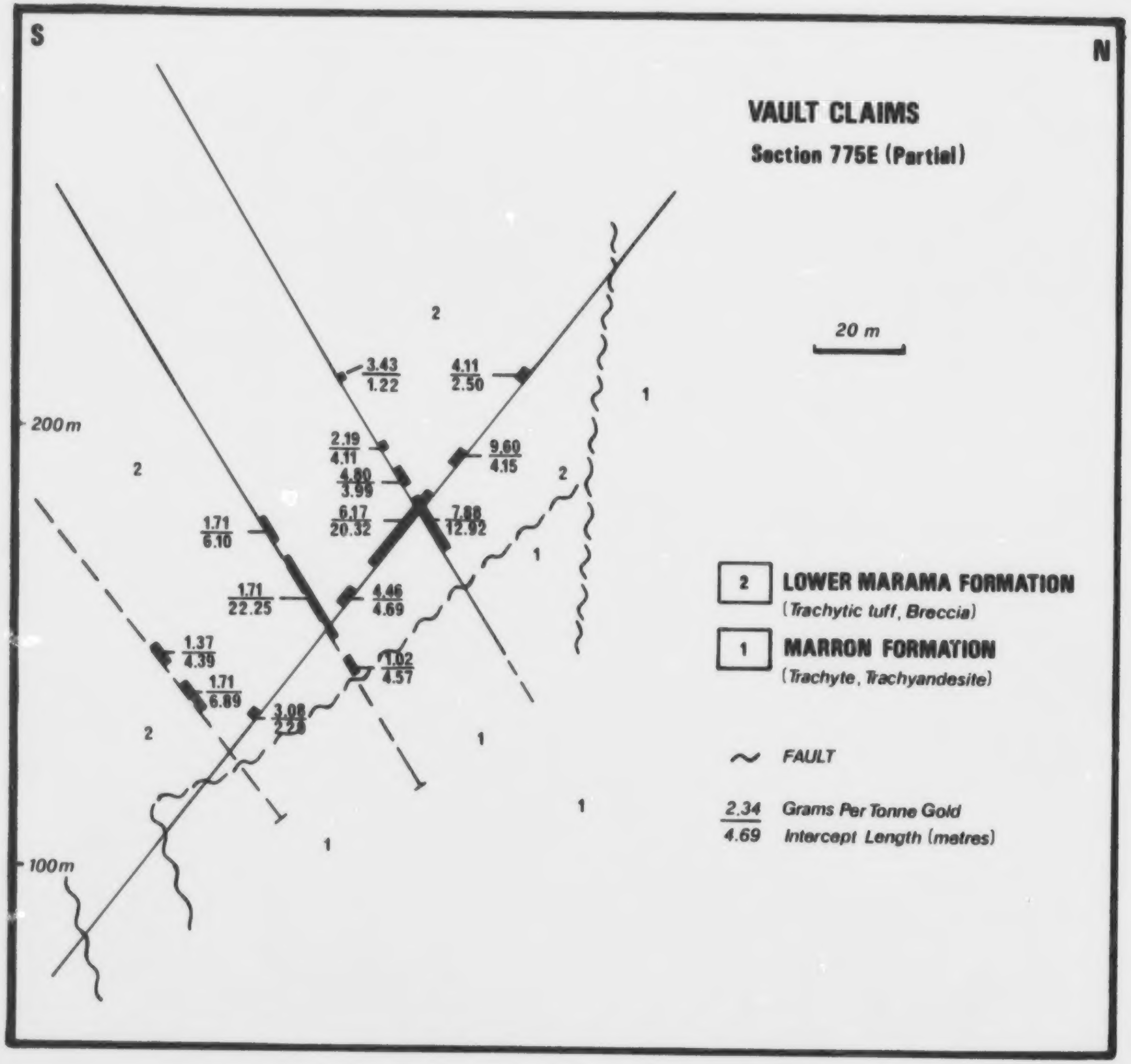
S
N
VAULT CLAIMS
Section 775E (Partial)
20 m
200 m
100 m
2
2
2
2
1
1
1
1
1
1
3.43 / 1.22
4.11 / 2.50
2.19 / 4.11
9.60 / 4.15
4.80 / 3.99
6.17 / 20.32
7.88 / 12.92
1.71 / 6.10
1.71 / 22.25
4.46 / 4.69
1.37 / 4.39
1.02 / 4.57
1.71 / 6.89
3.08 / 2.23
2 LOWER MARAMA FORMATION
(Trachytic tuff, Breccia)
1 MARRON FORMATION
(Trachyte, Trachyandesite)
FAULT
2.34 / 4.69 Grams Per Tonne Gold / Intercept Length (metres)

Figure B-2-3. Vault section 775E, looking west, showing detail of diamond-drill intersections.

black, grey and white silica. Some of the most significant gold values are associated with complex multistage veining. In a number of intersections the veins have been brecciated and subsequently rehealed by the addition of banded silica (Plate B-2-6). In other areas, banded quartz clasts are a significant component of the breccia (Plate B-2-7).

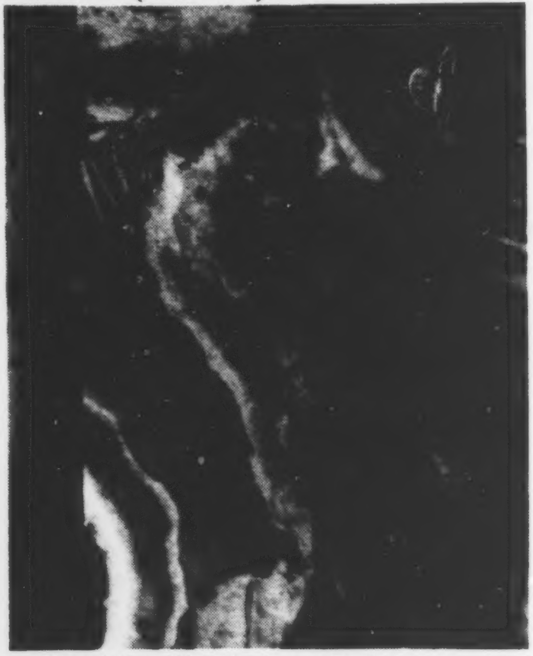

Plate B-2-4. Mineralized zone: Banded and brecciated quartz veins in mudstone, displaying multiple growth layers of white, grey and black chalcedonic quartz. Breccia fragments are strongly silicified and some are cut by later fine silicic veinlets. (Photo: T.G. Schroeter.)

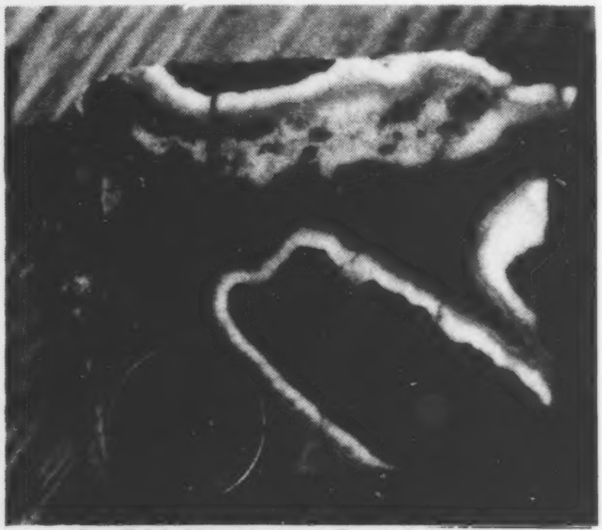

Plate B-2-5. Mineralized zone: Breccia fragments rimmed by banded quartz. Most of the matrix is black and grey silica. (Photo: T.G. Schroeter.)

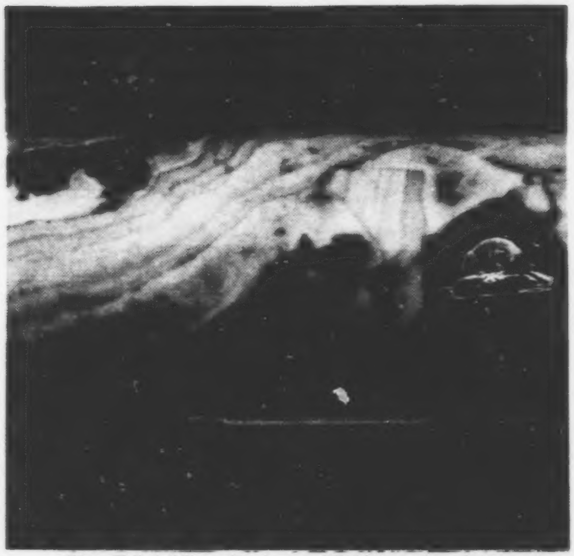

Plate B-2-6. Mineralized zone: Multistage growth textures in chalcedonic quartz vein and vein breccia. Early formed banded fragments are enclosed in later banded quartz. Fine-bladed quartz-calcite replacement intergrowths occur near the dark rims of individual silica layers. (Photo: T.G. Schroeter.)

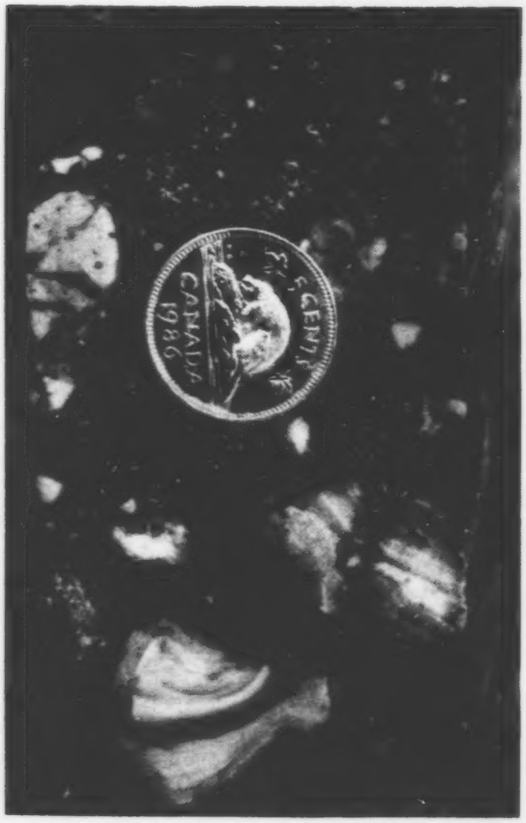

Plate B-2-7. Mineralized zone: Banded quartz vein fragments in post-vein breccia (epiclastic ?). (Photo: T.G. Schroeter.)

The sulphide content associated with mineralization is typically low, although some sections are highly oxidized, with 5 to 10 per cent pyrite which is very fine grained and may occur as disseminations, fracture or vein-breccia fillings and thin veinlets. Elevated pyrite content does not generally correlate with significant gold values. Base metal sulphides, such as chalcopyrite, galena and sphalerite, do not appear to be related to precious metal distribution on the Vault property. The geochemical signatures of copper, lead and zinc are typically low, with zinc showing the most variation. Molybdenum is one of the best pathfinder elements in the mineralized zone. It appears to correlate well with some high gold and silver values, however, the relationship is not consistent.

SUMMARY AND DISCUSSION

The geological setting, structure and style of precious metal mineralization on the Vault property show characteristics similar to many epithermal hot-spring-type gold-silver deposits in the western United States and elsewhere (Buchanan, 1981; Henley, 1985). The currently known mineral assemblage tentatively places the deposit in the "adularia-sericite" class, as outlined by Hayba *et al.* (1985).

Mineralization is associated with intense, generally widespread silicification and weak to moderate clay alteration. At surface, precious metals are geochemically anomalous, but sub-economic, whereas, below 300 metres depth, average values are within the economic range for gold.

On a regional scale and vein scale, mineralization is structurally controlled by major northeast and east-trending faults and related parallel fracture systems. It is, in part, lithologically controlled, confined primarily to tuffaceous, agglomeratic and brecciated rocks of the lower Marama Formation. This unit is overlain by dacite flows of the upper Marama Formation and underlain by trachytic rocks of the Marron Formation. Both units are less permeable than the lower Marama Formation.

This apparent stratigraphic control of mineralization may also be due, in part, to the vertical zonation of pressure and temperature and geochemical conditions that existed during the deposition of precious metals. Vertical variations in mineralization are characteristic of epithermal deposits (Buchanan 1981).

ACKNOWLEDGMENTS

I am indebted to Wim Groeneweg of Inco Gold Management Inc. for permission to visit the Vault property and for access to drill core. Fruitful discussions with Inco project geologists and with Murray Morrison, consulting geologist, are also acknowledged. Todd Hubner and William Taylor assisted with data collection and drafting of figures.

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NOTES

NELSON 82F

GREAT WESTERN GROUP

(Fig. B1, No. 03)

By Trygve Höy and Kathryn P.E. Andrew

LOCATION:	Lat. 49°26′25″ Long. 117°19′00″ 82F/6W NELSON MINING DIVISION. Approximately 6 kilometres south of Nelson near the confluence of the west and main forks of Giveout Creek.
CLAIMS:	GOLD EAGLE, GOLD EAGLE 1 FR., GOLD EAGLE 2-4, GOLD EAGLE 5 FR., STAR, FR., ST 3, ST 6 FR., MOR 2, BIRDSEYE, PRINCETON FR., INVERNESS, LADY ABERDEEN, MINTO FR., HADDO FR., AG, AG 1-6, WHISKERS 1-5, BRIAN, BRIAN 3, STARLIGHT, NORTH STAR, WHITE WITCH, BLACK WITCH, GOLD BELL, THISTLE, HORSESHOE, RED FR., TREGARDEN FR., IRENE, GREAT EASTERN, HILLTOP FR., HILLSIDE, GREAT WESTERN.
ACCESS:	The property is reached from Nelson by paved Ymir-Salmo Highway 6 (6.2 km south), Giveout Creek gravel road (3.5 km northwest) and four-wheel-drive Silver King Mine gravel road (2 km southwest).
OPERATOR:	LECTUS DEVELOPMENTS LTD. (1987 and 1988).
COMMODITIES:	Gold, copper.

THE GREAT WESTERN GROUP, ELISE FORMATION ROSSLAND GROUP

INTRODUCTION

Mineralization on the Great Western Group includes a number of gold-copper zones within highly foliated and sheared mafic volcanic rocks of the Lower Jurassic Elise Formation. These zones are exposed in a number of trenches on the eastern slopes of Giveout Creek.

REGIONAL STRATIGRAPHY

The Great Western Group property is underlain by basic to intermediate volcanic rocks of the upper Elise Formation, the central volcanic package of the Lower Jurassic Rossland Group. The Elise Formation is underlain by metasedimentary rocks of the Archibald Formation or correlative Ymir Group, and overlain by generally coarser clastic rocks of the Hall Formation (Mulligan, 1952; Little, 1960; 1982). The rocks are intruded by the middle to late Jurassic Nelson batholith and many small coeval stocks, by mid-Eocene Coryell syenites and by Tertiary rhyolite and lamprophyre dykes.

The Elise Formation is characterized by a series of interfingering lenses of massive to brecciated flows, tuffs, subvolcanic porphyries and minor epiclastic deposits. These lenses pinch out laterally and vertically causing facies changes on both outcrop and regional scales. Despite such lithologic variations, the eastern facies of the Elise Formation in the Nelson area is broadly subdivided into a lower and an upper member (Andrew and Höy, 1988). The lower Elise is up to a kilometre thick and comprises dominantly mafic flow breccias and flows. It is overlain by the upper Elise, comprising dominantly basic to intermediate volcanic and volcaniclastic rocks with an aggregate thickness of nearly 2.5 kilometres.

REGIONAL SETTING

The structure of the Nelson map area is dominated by northerly trending tight folds and associated shears. The Hall Creek syncline, a south-plunging, west-dipping overturned fold, is the most prominent fold in the area (Figure B-3-1, Andrew and Höy, this volume). A pronounced cleavage in clastic rocks and a penetrative foliation in volcanic rocks is parallel to the axial plane of the syncline. Northwest of the closure of the Hall Formation, the core of the syncline forms a zone of intense shearing more than a kilometre in width. This shear zone is informally referred to as the Silver King shear.

The Great Western Group lies on the eastern margin of Silver King shear zone. Rocks are locally intensely sheared and therefore it is often difficult to distinguish original rock types. Much of the upper Elise section is not recognised in this area, perhaps removed by the shearing.

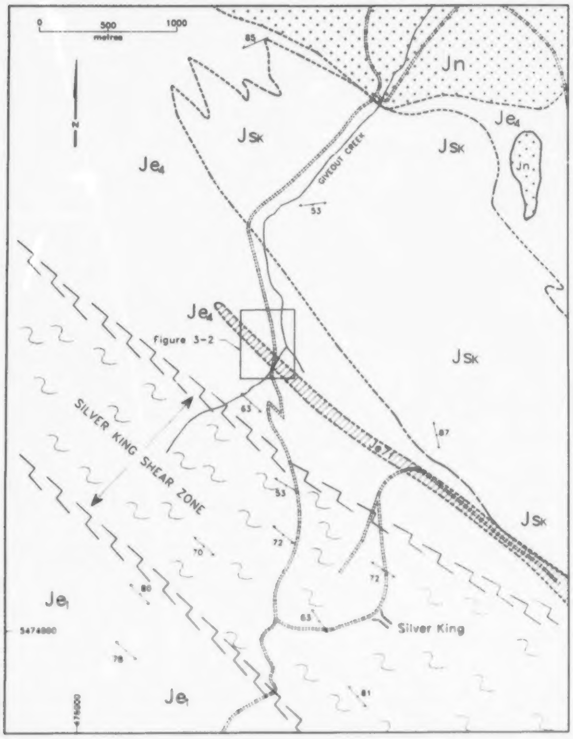
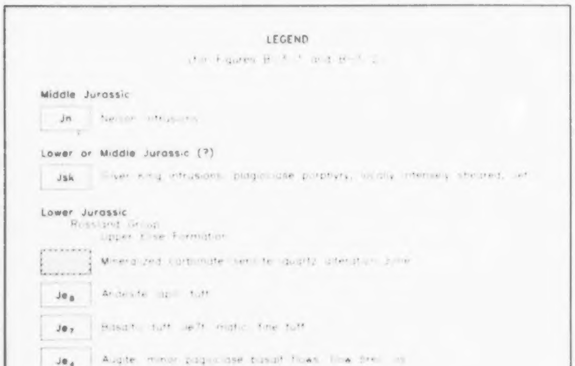

0
500
1000
metres
N
Jn
Je4
Jsk
GIVEOUT CREEK
Figure 3-2
SILVER KING SHEAR ZONE
Je7
Silver King
Je1
5474000
476000
85
53
63
87
70
72
80
78
65
81

Figure B-3-1. Geology of the Giveout Creek Area (from Andrew and Höy, 1988; Höy and Andrew, 1989a).


LEGEND
(for Figures B-3-1 and B-3-2)
Middle Jurassic
Jn
Nelson intrusions
Lower or Middle Jurassic (?)
Jsk
Silver King intrusions: plagioclase porphyry, locally intensely sheared, set
Lower Jurassic
Rossland Group
Upper Elise Formation
Mineralized carbonate-sericite-quartz alteration zone
Je8
Andesite lapilli tuff
Je7
Basaltic tuff (Je7f), mafic fine tuff
Je4
Augite, minor plagioclase basalt flows, flow breccias
Lower Elise Formation
Je1
Augite, minor plagioclase basalt flows, flow breccias

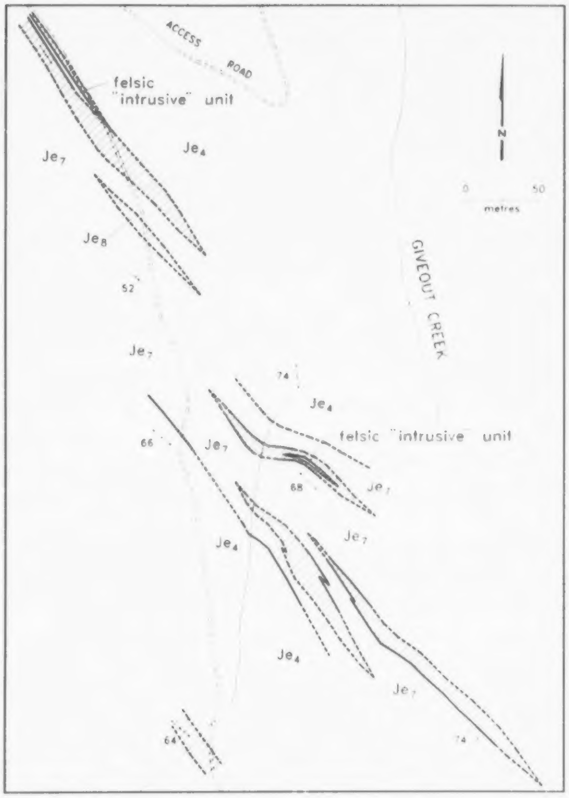

ACCESS ROAD
felsic "intrusive" unit
Je7
Je4
Je8
N
0
50
metres
GIVEOUT CREEK
52
74
66
68
64
74
felsic "intrusive" unit

Figure B-3-2. Geology in the vicinity of mineralized zones, Great Western Group.

PROPERTY GEOLOGY

Augite porphyry flows, mafic fine tuff, intermediate lithic tuff, and felsic intrusive lenses or crystal flows or sills of the upper Elise Formation underlie the southwestern part of the Great Western claims (Figure B-3-1). The mafic units comprise most of the succession in the area; intermediate to felsic units occur only as minor lenses. The succession is interpreted to be inverted as it occurs on the west limb of the overturned Hall Creek syncline. Supportive evidence for a dominantly overturned succession includes possible inverted graded beds in drill core (P.B. Read, personal communication, 1989) and rare bedding-cleavage intersections recognized in thin limestone layers.

The volcanic succession is intruded by the Silver King porphyry along the northeastern edge of the property (Figure B-3-1). The porphyry predates the intense regional deformation; it is deformed and metamorphosed, with the most intense shearing concentrated along its margins. Foliation throughout the area generally trends northwest, dips steeply to the southwest and is axial planer to the Hall Creek syncline.

The mafic volcanic rocks are predominantly green phyllites and schists. Lapilli tuff units, comprising stretched mafic clasts in a schistose matrix, are observed locally. Foliated and sheared mafic flows and flow breccias occur in the footwall of the most northerly mineralized zone (Figure B-3-2). Elsewhere, foliated green phyllite without recognizable clasts is interpreted to be derived from mafic fine tuff. Within these mafic volcanic rocks are a number of zones of intense carbonate-sericite-quartz alteration that are conformable to foliation and contain the gold-copper mineralization. A number of these zones are cored by felsic (syenite ?) lenses.

One of these lenses, now largely altered to a carbonate-sericite-quartz assemblage, is exposed in the most northerly mineralized zone (Figure B-3-2). It is 50 to 100 centimetres thick and at least 200 metres in length. It contains apparently broken quartz grains 2 to 3 millimetres across, highly altered plagioclase phenocrysts and minor secondary biotite crystals in a fine-grained, sheared and foliated carbonate-sericite matrix. Petrographic examination indicates that the quartz grains are actually clusters of recrystallized(?) quartz crystals that are neither broken nor embayed. It is probable that they are granulated or recrystallized quartz phenocrysts, but alternatively they may be remnants of early quartz stringers that are broken and rounded by shearing. Feldspar phenocrysts have been variably altered to white mica and carbonate and show vague 'ghost' outlines with possible zoning as well as randomly oriented twinning, suggesting that they are altered plagioclase grains. Small remnant patches of highly altered, granular, twinned plagioclase grains suggest that the protolith to the felsic lens may be a high-level felsic intrusion rather than a tuff or flow.

Accessory minerals in the felsic lenses include biotite, apatite and tourmaline. Fine-grained euhedral pyrite is concentrated mainly as stringers parallel to the foliation. Minor tourmaline occurs as tiny crystal sheaves that are aligned in the foliation plane. In the Black Witch zone, located several hundred metres northwest of the most northerly zone illustrated in Figure B-3-2, black tourmaline, with a distinctive blue pleochroism, comprises up to 50 per cent of the schist.

MINERALIZATION AND ALTERATION

Three principal zones of gold-copper mineralization occur in the immediate area. These are the Giveout Creek North and South zones, discovered in the fall of 1987 (Figure B-3-2), and the Black Witch zone located to the north. Although they are widely separated, the nature of the mineralization in each zone is similar, and a number are associated with the felsic intrusions (or volcanics).

Gold-copper mineralization occurs in zones of intense carbonate-sericite-quartz alteration in both the mafic units and in the associated felsic units. These alteration zones are 5 to 10 metres in width and several hundred metres in length. They contain 2 to 10 per cent sulphides, dominantly pyrite with minor chalcopyrite. The sulphides occur mainly as stringers parallel to the schistosity but are also pervasively distributed. The sulphide-bearing rocks are deformed together with the host rocks, indicating mineralization predates deformation. Some mineralization, however, is also concentrated in late, post-tectonic, crosscutting quartz veins.

The best intersection in drill core at the Great Western Group is 7 metres containing 9.7 grams per

TABLE B-3-1. ANALYSES OF SELECTED SAMPLES

Lab No.	Sample No.	Sample[1] Type	Au (ppb)	Ag (ppm)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Co (ppm)	Ni (ppm)	As (ppm)
36467	R78-2	chip	63	<0.3	22	3	13	16	4	<1
36468	R78-1	chip	23	<0.3	29	3	63	29	15	5
36469	R78-19	chip	197	<0.3	24	3	21	20	15	10
36470	R78-21	chip	223	2	480	10	40	19	17	3
36471	R78-23	chip	464	2	214	8	36	40	22	6
36472	R78-23e	chip	931	1	83	6	30	28	18	5
36473	R78-24	chip	208	<0.3	14	3	38	28	23	4
36500	R78-11	chip	25	<0.3	108	8	112	36	29	27
36506	R78-1	grab	60	0.7	81	3	96	42	120	4
36507	R78-3	grab	20	0.3	66	3	93	33	55	5
36508	R78-5	grab	168	0.3	18	3	67	26	41	14
36509	R78-13	grab	78	0.7	25	6	94	38	60	8
36510	R78-16	grab	82	0.8	211	6	68	26	22	5

[1] *Chip samples are taken over 1 metre*

tonne gold; the highest reported assay was 58 grams per tonne gold over 0.9 metre (George Cross Newsletter, November 17, 1987). Analyses of randomly selected chip and grab samples from the Great Western Group are shown in Table B-3-1. Gold content does not appear to correlate positively with other metals (Table B-3-2) suggesting that the sulphides are not necessarily good pathfinders for gold. Copper, silver and lead show a strong positive correlation as do cobalt, zinc and nickel.

SUMMARY AND DISCUSSION

Mineralization on the Great Western Group is hosted by mafic volcanic rocks and possible subvolcanic intrusions of the Lower Jurassic Elise Formation. Intense sericite-carbonate-quartz alteration accompanies mineralization; it appears to be spatially associated with the felsic intrusions. These mineralized zones are now elongate in the plane of regional foliation.

The age and origin of gold-copper mineralization and associated alteration are not known. Mineralization is pre-tectonic (or possibly early syntectonic) as it is affected by the intense foliation and shearing in a similar manner to adjacent unmineralized rocks. This suggests that it has a syngenetic, or perhaps early replacement origin. However, the close spatial association of mineralization with felsic lenses, exposed in at least two of the mineralized zones and assumed to be part of the Elise volcanic succession, argues strongly for a syngenetic origin.

We refer to this deposit, and other somewhat similar deposits in the Nelson area (Höy and Andrew, 1989b) as "conformable gold deposits". They appear to be associated with synvolcanic intrusions, are aligned with the prominent foliation or layering, have conspicuous alteration envelopes and are sheared and foliated together with their host rocks. They may be porphyry gold deposits, with mineralization associated with small, high-level synvolcanic intrusions. Their conformable nature may be due entirely to overprinting by intense foliation and shearing.

WORK DONE

Several small tunnels and pits are present on the property, dating back to the early 1900s. Systematic exploration of the area began in 1979 when Asarco Exploration Company of Canada Ltd. registered the Aberdeen group of claims. It undertook soil sampling, geophysics and diamond drilling in nine holes in the period 1979-1982. In 1985, Lindex Explorations Ltd. entered into option agreements with Asarco covering the Aberdeen claim group and with R.J. Bourdon covering the Great Western claim group (Salazar, 1985). Lectus Developments Ltd. began resampling, relocating, surveying, and trenching on the claims in 1986 and drilled 21 holes in 1987 (George Cross Newsletter, January 14, 1988).

ACKNOWLEDGMENTS

We would like to acknowledge the able and cheerful field assistance of Cathy Lund and Mike Holmes. Discussions with Peter Read of Geotex Consultants Ltd., Lectus Development Company geologists, and Vic Preto and Ron Smyth of the B.C. Geological Survey Branch were very most helpful. John Newell's editorial comments are appreciated.

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TABLE B-3-2.
CORRELATION COEFFICIENTS FOR ELEMENTS
FROM THE DATA LISTED IN TABLE B-03-1 (N=13)

Element	Au	Ag	Cu[1]	Pb[1]	Zn	Co[1]	Ni[1]	As
Au		0.487	0.157	0.319	-0.503	0	-0.25	-0.158
Ag			**0.816**	**0.759**	-0.261	0.100	0	-0.237
Cu				**0.805**	-0.158	-0.204	-0.178	-0.097
Pb					0	0	-0.244	0.299
Zn						**0.649**	**0.655**	0.595
Co							**0.673**	0.320
Ni								0
As								

[1] *Coefficients in bold type = 99 percent significance*
r(0.01,13) = 0.641, r(0.05,13) = 0.514

between Nelson and Ymir, Southeastern British Columbia, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Open File 1988-1.

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NOTES

SHAFT

(Fig. B1, No. 04)

By Kathryn P.E. Andrew and Trygve Höy

LOCATION:	Lat. 49°26′10″ Long. 117°16′40″ 82F/6W NELSON MINING DIVISION. About 7 kilometres south of Nelson. The area being explored lies on the northeasterly flank of Toad Mountain bounded to the south by Gold Creek and east by Cottonwood Creek.
CLAIMS:	SHAFT FR., COT, COT FR., ROADSIDE FR., MAS FR., EE FR., FLAT FR., AU 2, AU 4, STAR OF THE WEST, TAR OF THE EAST, MAGPIE, ELDORADO, PACTOLUS FR., EER FR., MIDNITE FR.
ACCESS:	From Nelson by paved Ymir-Salmo Highway 6 (6.2 km south), Giveout Creek gravel road (1.6 km north) and four-wheel-drive Gold Creek Gravel road (4.6 km west and south).
OWNERS:	O. Janout, O. Janout Sr., B. Bourden, C. Pittman.
OPERATOR:	SOUTH PACIFIC GOLD CORPORATION (1988 only).
COMMODITIES:	Gold, copper.

THE SHAFT SHOWING, ELISE FORMATION, ROSSLAND GROUP

INTRODUCTION

The Shaft property is a new mineral occurrence in the Nelson map area. Gold, copper and magnetite mineralization and associated chlorite-epidote-carbonate alteration occur in highly foliated upper Elise Formation volcanic and intrusive rocks on the eastern limb of the Hall Creek syncline. Mineralization appears spatially associated with early mafic intrusive rocks and is conformable with regional foliation (Höy and Andrew, 1989b).

REGIONAL SETTING

The property lies on the eastern limb of the Hall Creek syncline, a tight south-plunging fold associated with intense shearing that dominates the structure of the Nelson area (Little, 1982, Höy and Andrew, 1989b). The syncline is cored by volcanic and sedimentary rocks of the lower Jurassic Rossland Group and rimmed to the east by upper Triassic to lower Jurassic sedimentary rocks of the Ymir Group (Figure B-4-1). The middle Jurassic Nelson batholith and numerous other small granodiorite stocks of probable similar age intrude the stratigraphic succession in the Nelson area. Mid-Eocene Coryell syenites and a variety of Tertiary dykes intrude the Jurassic package.

The Hall Creek syncline is the most prominent fold in the Nelson map area. A pronounced cleavage in clastic rocks and a penetrative foliation in volcanic rocks parallel the axial plane of the syncline. To the north, at a deeper structural level, the core of the syncline forms a zone of intense shearing more than a kilometre in width, informally referred to as the Silver King shear; further north, it is cut by the Nelson batholith. Other early structures such as the Mount Elise shear to the east predate the Middle Jurassic intrusions (Figure B-4-1). Many mineral deposits are structurally controlled by these early faults or shear zones (Höy and Andrew, 1989b).

REGIONAL STRATIGRAPHY

The Rossland Group is subdivided into dominantly fine-grained clastic rocks of the Archibald Formation, volcanic rocks of the Elise Formation and clastic rocks of the Hall Formation (Mulligan, 1952, Little, 1960, Tipper, 1984). These rocks are Early Jurassic in age, bracketed by Sinemurian fossils in the Archibald (Frebold and Tipper, 1970; Tipper, 1984) and Pliensbachian and Toarcian fossils in the Hall (Frebold and Little, 1962, Tipper, 1984). The Ymir Group underlies the Elise Formation in the Nelson area. Based on lithologic similarity and superposition, the upper part of the Ymir Group is correlated with the Archibald Formation, and its lower part with the Late Triassic Slocan Group exposed on the north side of the Nelson batholith (Little, 1960).

The Elise Formation is exposed in the east and west limbs of the Hall Creek syncline. It exhibits marked facies changes throughout the district. The eastern facies, in the vicinity of the Shaft deposit, is broadly subdivided into a lower and an upper member (Höy and Andrew, 1988). The lower Elise comprises a

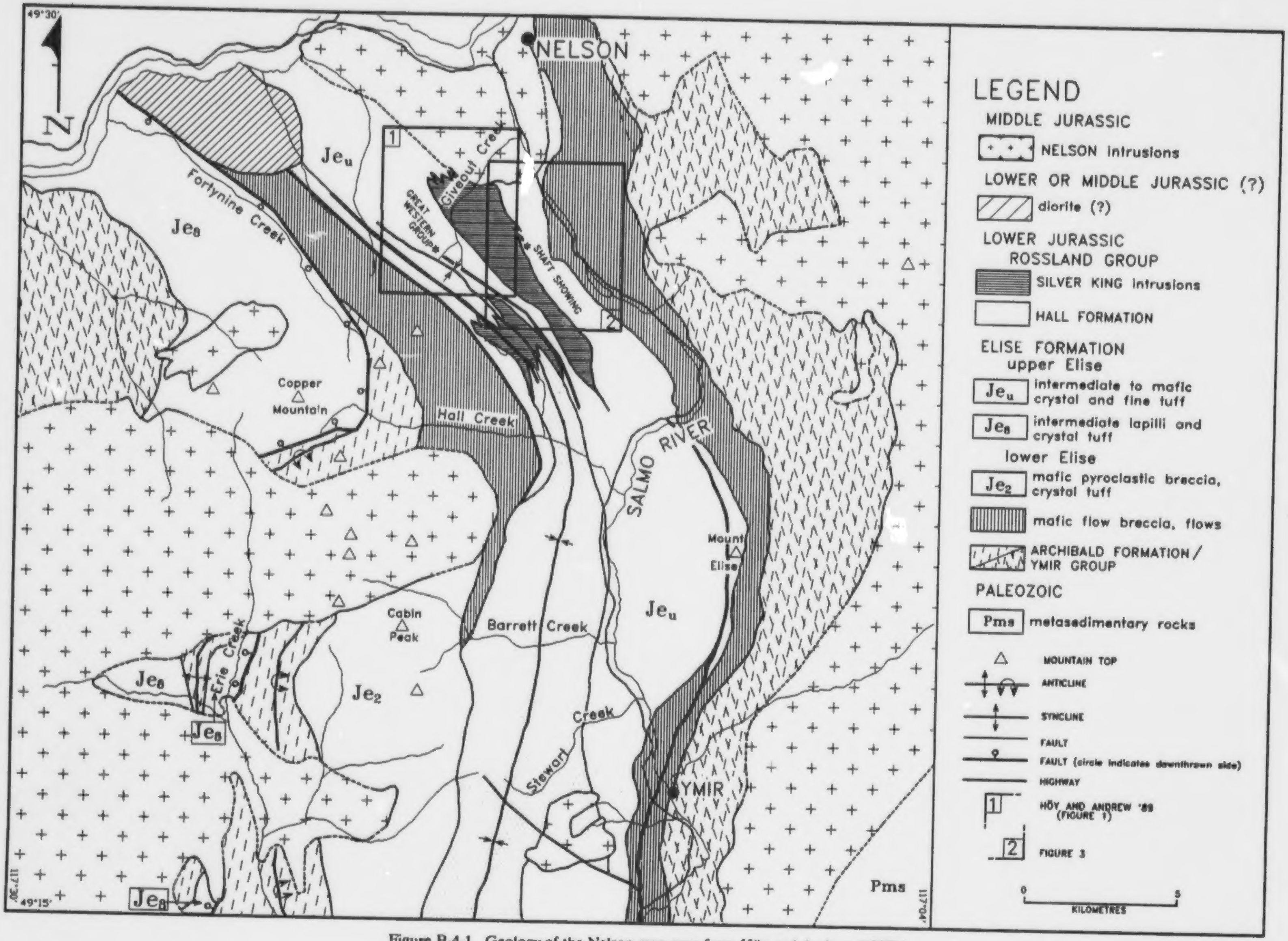

49°30'
N
NELSON
Je_u
Giveout Creek
GREAT WESTERN GROUP
SHAFT SHOWING
1
2
Je_8
Fortynine Creek
Copper Mountain
Hall Creek
SALMO RIVER
Mount Elise
Je_u
Cabin Peak
Barrett Creek
Erie Creek
Je_8
Je_2
Je_8
Stewart Creek
YMIR
Je_8
Pms
117°30'
49°15'
117°04'
LEGEND
MIDDLE JURASSIC
NELSON intrusions
LOWER OR MIDDLE JURASSIC (?)
diorite (?)
LOWER JURASSIC
ROSSLAND GROUP
SILVER KING intrusions
HALL FORMATION
ELISE FORMATION
upper Elise
Je_u intermediate to mafic crystal and fine tuff
Je_8 intermediate lapilli and crystal tuff
lower Elise
Je_2 mafic pyroclastic breccia, crystal tuff
mafic flow breccia, flows
ARCHIBALD FORMATION / YMIR GROUP
PALEOZOIC
Pms metasedimentary rocks
MOUNTAIN TOP
ANTICLINE
SYNCLINE
FAULT
FAULT (circle indicates downthrown side)
HIGHWAY
1 HÖY AND ANDREW '89 (FIGURE 1)
2 FIGURE 3
0
5
KILOMETRES

Figure B-4-1. Geology of the Nelson map area from Höy and Andrew (1989b).

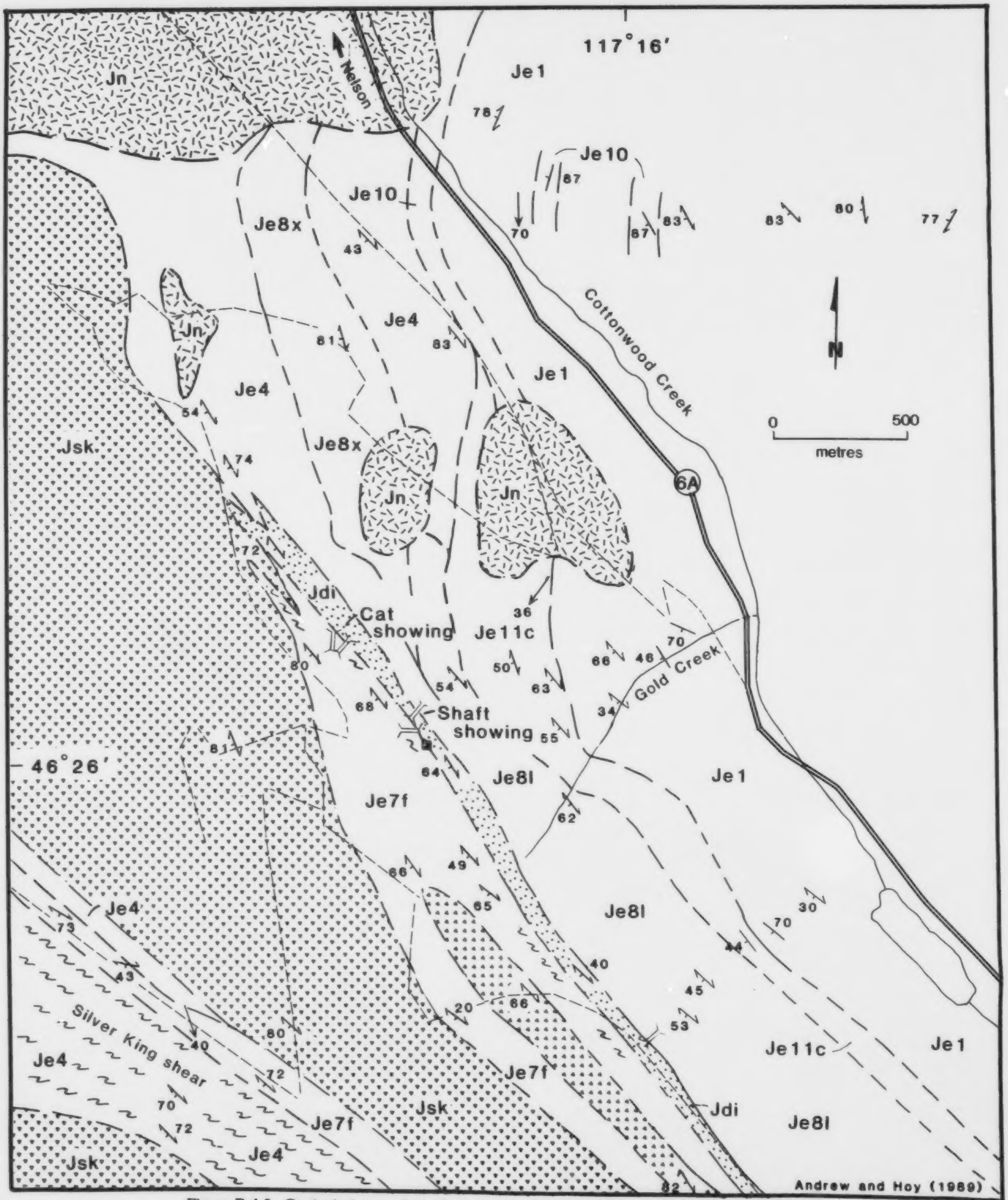
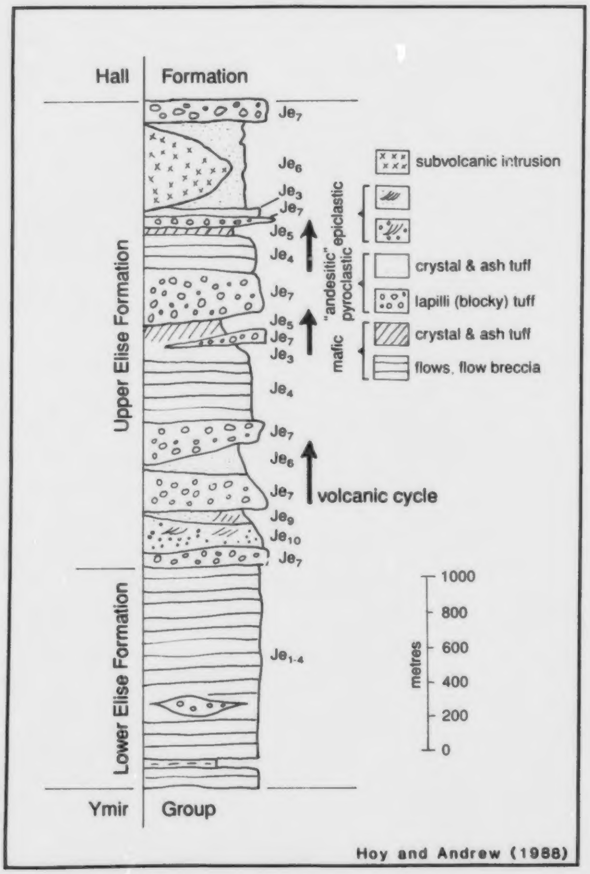

117°16′
Nelson
Jn
Je1
Je10
Je10
Je8x
Je4
Je4
Je8x
Je1
Jn
Jn
Jn
Jsk
Jdi
Cat showing
Shaft showing
Je11c
Gold Creek
Cottonwood Creek
6A
N
0
500
metres
46°26′
Je7f
Je8l
Je1
Je8l
Je4
Silver King shear
Je4
Je7f
Jsk
Je4
Jsk
Je7f
Jdi
Je11c
Je8l
Je1
Andrew and Hoy (1989)

Figure B-4-3. Geological map of the Gold Creek - Cottonwood Creek area south of Nelson.

succession of dominantly mafic flow breccias and flows up to a kilometre thick, overlain by an upper section of dominantly intermediate volcanic and volcaniclastic rocks nearly 2.5 kilometres thick (Figure B-4-2). The upper Elise is intruded by a number of plagioclase porphyries including the Silver King porphyry. These are intensely deformed and are locally incorporated as fragments in Elise epiclastic rocks. Further west, in the Copper Mountain area, the entire formation is characterized by mafic to intermediate pyroclastic deposits.



Hoy and Andrew (1988)

Figure B-4-2. Composite volcanic succession, eastern Elise Formation (from Höy and Andrew, 1988).

PROPERTY GEOLOGY

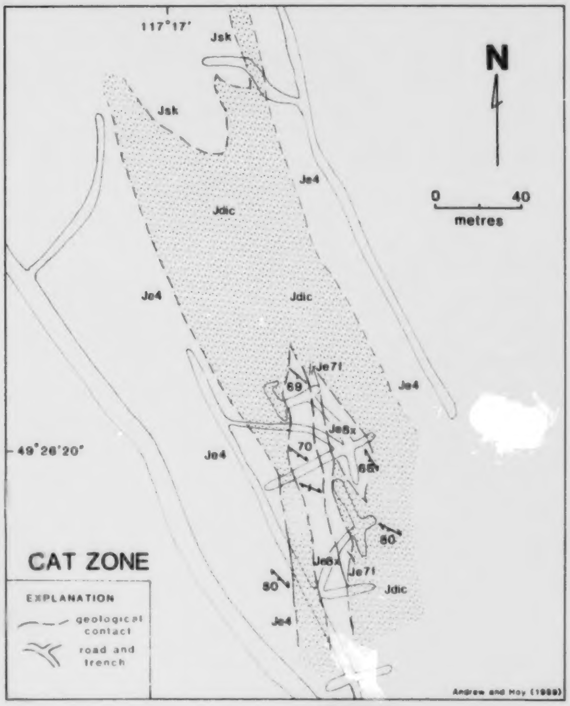
Much of the Shaft property is underlain by augite porphyry flows and lapilli, crystal and fine tuffs of the upper Elise Formation (Andrew and Höy, 1988). These basic to intermediate volcanic rocks are intruded by an elongate, fine to medium-grained mafic intrusive complex, often locally brecciated (Figure B-4-3). The complex is tabular, up to 50 metres in width and 5 kilometres in strike length. Although it appears to be a sill, it is possible that it crosscuts the host rocks prior to deformation and was subsequently transposed into parallelism. The igneous rocks at the Shaft prospect appear as schistose green rocks, whose colour is due to abundance of chlorite and epidote. Distinction between crystal tuffs and mafic sills is difficult in hand sample because of the intense alteration. These rocks have also been extensively sheared, with foliation striking dominantly northwest and dipping steeply southwest. Silver King plagioclase porphyry occurs along the western edge of the claim group. Both the Silver King intrusion and the mafic intrusive complex predate the intense regional deformation as well as intrusion of the middle Jurassic Nelson batholith (Höy and Andrew, 1989b).

Based on preliminary petrographic examination, the mafic complex is a fine to medium-grained, often porphyritic intrusion that ranges in composition from quartz diorite to monzodiorite and perhaps minor diorite. It comprises an intergrowth of 30 to 45 per cent anhedral to subhedral calcic plagioclase (An_{55-60}), 5 to 10 per cent orthoclase, rare microcline and 2 to 3 per cent quartz. The feldspars appear partially strained and have been variably altered to sericite (10 to 25 per cent), which occurs as felted clumps. Biotite (10 to 25 per cent) is widely distributed and occurs as sheaves of tabular crystals that have grown parallel to the schistosity; some masses retain a prismatic shape, perhaps pseudomorphic after hornblende(?) or augite(?). Small amounts of epidote (less than 10 per cent), commonly associated with magnetite, occur as small disseminated granules. Chlorite (less than 5 per cent) is often intergrown with the biotite. Carbonate, mainly calcite, occurs as irregular veinlets and pockets often intergrown with quartz, and locally intergrown with the biotite and feldspar. Apatite, sphene, hematite and malachite are present in trace amounts. Fine-grained, euhedral to subhedral chalcopyrite, pyrite and magnetite grains occur disseminated throughout the rock.

MINERALIZATION AND ALTERATION

Two principal copper-gold showings were identified on the Shaft claims in the fall of 1987; these are the Shaft and Cat (Figures B-4-4 and 5). Although they are separated by over 500 metres, the character of the mineralization is similar and both are associated with the monzodiorite complex.

Gold and copper mineralization occurs mainly in the monzodiorite complex but also in upper Elise tuffs and in the margins of the Silver King porphyry. The complex generally contains up to 1 per cent magnetite


117°17'
Jsk
Jsk
N
0 40
metres
Je4
Jdic
Je4
Jdic
Je7f
69
Je4
Je8x
70
49°26'20"
Je4
68
80
CAT ZONE
Je8x
Je7f
80
Jdic
Je4
EXPLANATION
geological contact
road and trench
Andrew and Hoy (1989)

LEGEND

MIDDLE JURASSIC

Jn NELSON intrusions: Jn1, granodiorite, quartz monzonite; Jn2, diorite porphyry; Jn3, breccia

LOWER OR MIDDLE JURASSIC (?)
intrusive units

Jsk SILVER KING intrusions: plagioclase porphyry; locally intensely sheared

Jdi fine to coarse, granular diorite

LOWER JURASSIC

ROSSLAND GROUP

Je ELISE FORMATION: mafic to intermediate flows, tuffs, epiclastic deposits and subvolcanic intrusions

upper ELISE FORMATION

epiclastic units

Je11 tuffaceous conglomerate: Je11c, predominantly intermediate to felsic volcanic and intrusive clasts; Je11b, mixed mafic to felsic clasts; Je11a, predominantly mafic volcanic clasts

Je10 tuffaceous siltstone, sandstone: Je10a, argillaceous siltstone

pyroclastic units

Je8 andesite tuff, minor basaltic tuff: Je8l, lapilli tuff with plagioclase +/- augite-bearing volcanic clasts; Je8x, plagioclase +/- augite crystal tuff

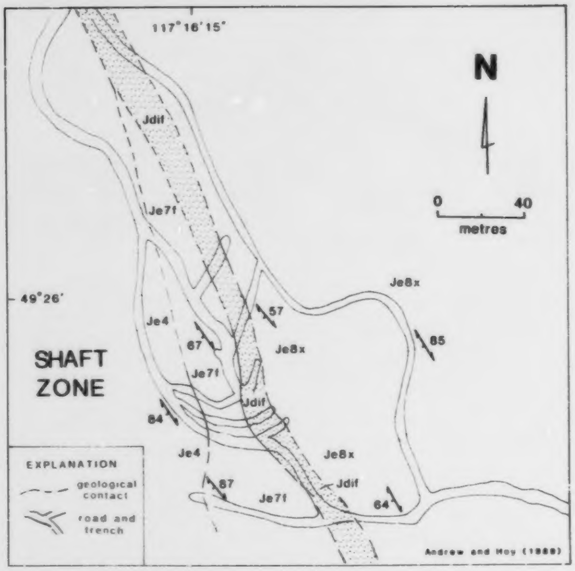
Je7 basaltic tuff: Je7f, mafic, fine tuff

Je4 augite +/- plagioclase basalt flows, flow breccias

lower ELISE FORMATION

Je1 augite +/- plagioclase basalt flows, flow breccias, subvolcanic intrusions

Figure B-4-4. Geology in the vicinity of the Cat showing.


117°16'15"
N
Jdif
0 40
metres
Je7f
Je8x
49°26'
57
Je4
65
67
Je8x
SHAFT ZONE
Je7f
Jdif
84
Je4
Je8x
87
Jdif
Je7f
64
EXPLANATION
geological contact
road and trench
Andrew and Hoy (1989)

LEGEND

LOWER OR MIDDLE JURASSIC (?)
intrusive units

Jsk SILVER KING intrusions: plagioclase porphyry; locally intensely sheared

Jdi monzodiorite: Jdif, fine; Jdic, coarse

LOWER JURASSIC
ROSSLAND GROUP
upper ELISE FORMATION
pyroclastic units

Je8 andesite tuff, minor basaltic tuff: Je8l, lapilli tuff with plagioclase +/- augite-bearing volcanic clasts; Je8x, plagioclase +/- augite crystal tuff

Je7 basaltic tuff: Je7f, mafic, fine tuff

Je4 augite +/- plagioclase basalt flows, flow breccias

Figure B-4-5. Geology in the vicinity of the Shaft showing.

and a high proportion of sulphides, including up to 15 per cent pyrite, 3 per cent chalcopyrite and rare pyrrhotite. Chalcopyrite occurs mainly as small discrete patches and in thin layers, whereas pyrite and magnetite are disseminated throughout most of the complex. Sulphides occur both within breccia fragments and in the matrix. Malachite forms on weathered fracture surfaces adjacent to chalcopyrite.

The monzodiorite and Elise tuffs are both variably altered to a chlorite-epidote-carbonate-sericite assemblage. Although the assemblage resembles that typically found in greenschist facies regional metamorphism elsewhere in the Nelson area, the intensity and extent of alteration at the Shaft showing is far more severe. This suggests that the alteration may be due in part to overprinting of a propylitic assemblage of chlorite-epidote-carbonate with a later assemblage of sericitic-carbonate-quartz.

Surface grab samples at the Shaft zone assayed an average of 6.2 grams per tonne gold and 1 per cent copper (Jenks, 1988). The best intersection in drill core is 5.4 metres containing 6.9 grams per tonne gold and 1 per cent copper. Gold content appears to correlate positively with copper values, as suggested by Jenks and also with cobalt values, as indicated in the data presented in Tables B-4-1 and 2. High gold and copper values also correspond with the zone of intense chlorite-sericite-carbonate alteration. Lead, zinc and arsenic show a strong positive correlation (Table B-4-2) although concentrations are noticeably low (Table B-4-1). Silver was not included in the correlation matrix because many analyses were below the detection limit (0.3 ppm).

DISCUSSION

Mineralization on the Shaft property is hosted by lower Jurassic Elise Formation tuffs and possibly synvolcanic mafic to intermediate intrusions. Intense propylitic alteration appears to be spatially associated with the mafic intrusions and the gold-copper-magnetite mineralization. Regional metamorphism to greenschist grade, and intense shearing have overprinted the host rocks and mineralization.

In summary, detailed mapping on and around the Shaft property indicates both structural and stratigraphic controls on mineralization. The close spatial association between gold-copper mineralization and intense chlorite-epidote-carbonate alteration of the monzodiorite complex indicates that hydrothermal fluids may have been deuteric or late magmatic in origin;

TABLE B-4-1. ANALYSES OF SELECTED SAMPLES

Lab No.	Sample[1] No.	Sample[2] Type	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Co ppm	Ni ppm	As ppm
36475	R79-1	chip	160	<0.3	820	6	95	22	4	8
36476	R79-2	chip	32	<0.3	760	8	107	44	66	12
36477	R79-3	chip	<20	<0.3	320	9	95	24	4	10
36478	R79-4	chip	203	<0.3	146	11	108	22	4	8
36479	R79-10	chip	564	<0.3	480	5	125	32	11	8
36480	R79-15	chip	191	1	720	10	340	26	4	23
36481	R79-17	chip	552	1	405	10	119	26	4	53
36482	R79-18	chip	<20	<0.3	111	9	123	22	4	6
36483	R79-21	chip	<20	<0.3	104	11	105	24	4	9
36484	R80-1A	chip	864	2	0.70%	13	101	34	6	12
36485	R80-1B	chip	1980	1	0.47%	10	81	33	4	9
36486	R80-4	chip	32	0.3	165	6	152	26	7	7
36487	R80-5	chip	300	0.7	0.27%	11	128	27	8	8
36488	R80-6	chip	2420	1	0.64%	13	92	23	4	7
36489	R80-9	chip	1200	1	0.51%	15	102	36	80	11
36490	R80-17	chip	200	<0.3	0.18%	12	68	30	12	20
36491	R80-21	chip	446	6	0.32%	49	710	34	8	61
36492	R80-24	chip	187	0.3	610	15	80	25	19	11
36493	R80-26	chip	133	1	0.10%	14	65	21	5	27
36511	R79-4A	grab	54	0.3	173	6	112	25	4	10
36512	R79-9	grab	50	0.3	186	7	114	24	4	9
36513	R79-12V	grab	2030	23	0.84%	3	22	82	4	2
36514	R79-12	grab	82	0.5	610	6	139	37	10	6
36515	R79-13	grab	1860	2	0.63%	7	137	36	4	13
36516	R79-14	grab	185	1	640	7	246	26	4	22
36517	R79-16	grab	526	7	0.40%	9	219	24	4	35
36518	R79-17	grab	340	1	630	10	115	23	4	44

[1] *Samples R79 are from the Cat showing; R80 are from the Shaft showing*

[2] *Chip samples are taken over 1 metre*

TABLE B-4-2. CORRELATION COEFFICIENTS FOR ELEMENTS FROM THE DATA LISTED IN TABLE B-4-1 (N=27).

Element	Au	Cu[1]	Pb	Zn[1]	Co[1]	Ni	As[1]
Au		**0.867**	00	-0.149	**0.476**	0	-0.135
Cu			0.113	0	**0.591**	0	0
Pb			**0.792**	0	0	**0.610**	
Zn					0	**0.628**	
Co						0.23	-0.187
Ni							-0.111
As							

[1] *Coefficients in bold type = 99 per cent significance*
r(0.01, 27) = 0.470, r(0.05, 27) = 0.367

however, there also appears to be a strong structural control as the monzodiorite and showings are aligned in a zone of intense shearing, parallel to the regional foliation. Perhaps this intense shearing has remobilized and concentrated copper and gold. We refer to this deposit, and other somewhat similar deposits in the Nelson area as "conformable gold deposits" (Höy and Andrew, 1989b). They appear to be associated with synvolcanic intrusions, are aligned with the prominent foliation or layering and are sheared and foliated together with their host rocks.

The monzodiorite complex extends for over 5 kilometres south-southeasterly from the Shaft claims to the area of the Kena occurrence (Höy and Andrew, 1989a). Similar pre-Nelson mafic intrusions occur northwest of Morning Mountain in the vicinity of Sandy Creek, south of Stewart Creek and near Midday Peak. The potential for other similar but unrecognised intrusions associated with extensive shear zones makes this type of deposit an exciting new discovery in the Nelson area.

WORK DONE

A turn-of-the-century prospector's pit was located by Otto Janout in July 1987; he subsequently staked the Shaft claims in partnership with Okatar Janout, Robert Bourden and Charles Pittman. In the fall of 1987 an option was granted to South Pacific Gold Corporation which undertook geological mapping, trenching, magnetic and induced polarization surveys (Seywerd, 1988), soil and rock geochemistry and 760 metres of diamond drilling in six holes (Jenks, personal communication).

ACKNOWLEDGMENTS

We would like to acknowledge the able and cheerful field assistance of Cathy Lund and Mike Holmes. Discussions with Otto Janout and John Jenks were very helpful. The editorial comments by John Newell are appreciated.

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HOWE, HOWELL

(Fig. B1, No. 05)

By Andrew Skupinski and Andrew Legun

LOCATION:	Lat. 49°07′ Long. 114°10′ 82G/2 FORT STEELE MINING DIVISION. MacDonald Range, in the vicinity of Howell and Twentynine Mile creeks, 30 kilometres southeast of Fernie.
CLAIMS:	HOWE, HOWELL.
ACCESS:	Access to the claims is by logging roads leaving Highway 3 near Morrissey, 13 kilometres south of Fernie, for a distance of about 60 kilometres following Morrissey, Lodgepole and Harvey creeks and into the valleys of Howell Creek and Twentynine Mile Creek. An extensive network of logging roads provides vehicle access to most of the property.
OWNER/OPERATOR:	PLACER DOME INC., COMINCO LTD.
COMMODITY:	Gold.

GEOLOGY OF ALKALIC ROCKS AT TWENTYNINE MILE CREEK, FLATHEAD RIVER AREA, SOUTHEASTERN BRITISH COLUMBIA

EXPLORATION HISTORY

The Howell Creek trachyte-syenite complex was first mapped by the Geological Survey of Canada (Price, 1961). The complex outcrops in two prominent ridges on the property of which only the eastern ridge is shown in Figure B-5-1. The first mineral claims in the area were staked by N.C. Lenard in 1969. Over the next several years geologic and geochemical work evaluated the potential for copper, molybdenum, lead and zinc mineralization, mostly on the west ridge. The ground was held by Canartic Resources Ltd. of Calgary and subsequently by Cominco Ltd. (1972). Twelve test pits were eventually dug on a lead anomaly in soils but they disclosed no sulphides other than pyrite. A VLF-EM survey completed in 1972 failed to locate any conductors. However, anomalous silver values were noted in soils and further work was recommended (Lenard, 1972).

The property was restaked by Cominco for gold in 1983, on the basis of heavy mineral sampling results. Soil and rock geochemistry, and mapping followed in 1984. Some gold-silver anomalies were outlined on the eastern ridge. It was recognized that the eastern ridge contained much less intrusive material than had been mapped by Price; logging and fires in the intervening years had greatly improved exposures. Outcrops of disseminated pyrite, fluorite and galena mineralization in trachytes were noted on the lower north and south slopes of the western ridge (Noakes, 1984; Termuende, 1987).

In 1986 M.J. Casselman suggested that the intrusions cut the Cretaceous Alberta Group and perhaps were Tertiary in age. Chemical studies indicated the presence of potassic alteration. Quartz veins were sampled and found to be barren.

In 1987 interest shifted further to the east, to the area of the eastern ridge underlain by Paleozoic carbonates. Both Cominco Ltd. and Placer Dome Inc. conducted detailed grid mapping and geochemical surveys. Work by Fox Geological Consultants Ltd. since 1987 has been directed toward the potential for bulk mineable gold. The model for their work is the Zortman-Landusky mine in Montana (open pit, heap leach of ore averaging 0.7 to 1.4 grams per tonne gold).

REGIONAL GEOLOGY

The property lies on the southwest boundary of the Howell Creek inlier in the southern Rocky Mountains, a tectonic window that has been subsequently modified by Tertiary normal faulting. The window consists of a folded sequence of Upper Cretaceous rocks surrounded by and in fault contact with Paleozoic and Precambrian rocks. The window is bounded on the northeast by the Harvey Creek normal fault and on the southwest by a major fault informally named the "southwestern thrust". The hangingwall of this thrust is occupied by Paleozoic and Proterozoic sediments cut by the alkalic intrusive rocks which are the subject of this study.

The southeast border of the tectonic window is marked by an enigmatic fault which places Upper Cretaceous shales on top of Paleozoic carbonate rocks. The juxtaposition suggests a normal fault but Price (1965) presents arguments that the fault is a steeply dipping thrust. The continuation of this fault at

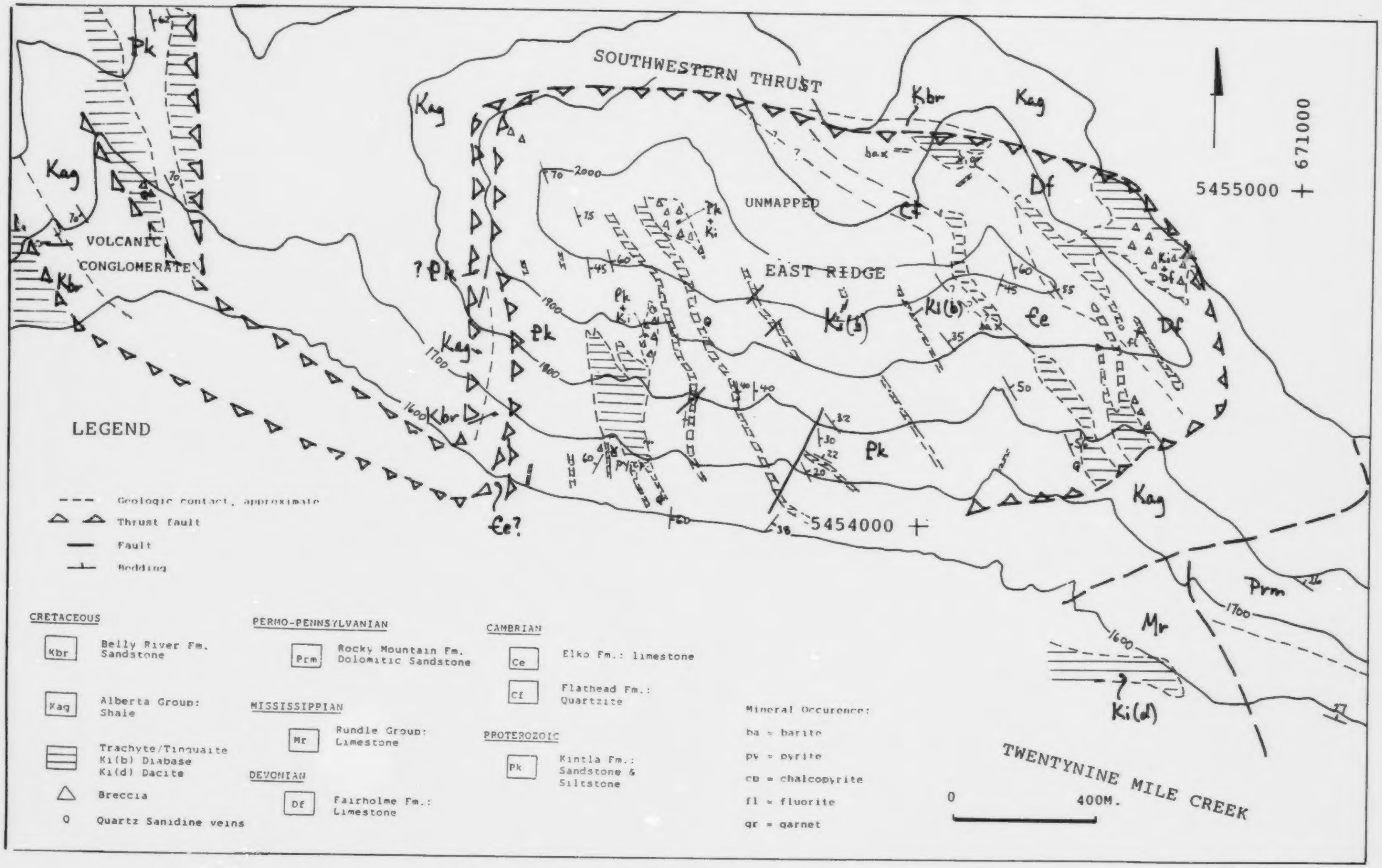
SOUTHWESTERN THRUST
UNMAPPED
EAST RIDGE
VOLCANIC CONGLOMERATE
TWENTYNINE MILE CREEK
5455000 + 671000
5454000 +
0
400M.
Kag
Kbr
Pk
Df
Cf
Ce
Ce?
Ki(b)
Ki(d)
Mr
Prm
Ki
bax
2000
1900
1800
1700
1600
LEGEND
Geologic contact, approximate
Thrust fault
Fault
Bedding
CRETACEOUS
Kbr Belly River Fm. Sandstone
Kag Alberta Group: Shale
Trachyte/Tinguaite
Ki(b) Diabase
Ki(d) Dacite
Breccia
Q Quartz Sanidine veins
PERMO-PENNSYLVANIAN
Prm Rocky Mountain Fm. Dolomitic Sandstone
MISSISSIPPIAN
Mr Rundle Group: Limestone
DEVONIAN
Df Fairholme Fm.: Limestone
CAMBRIAN
Ce Elko Fm.: limestone
Cf Flathead Fm.: Quartzite
PROTEROZOIC
Pk Kintla Fm.: Sandstone & Siltstone
Mineral Occurence:
ba = barite
py = pyrite
cp = chalcopyrite
fl = fluorite
gr = garnet

Figure B-5-1. Geology of the Howell Creek trachyte-syenite complex.

Twentynine Mile Creek has been the subject of much controversy.

The strike and dip of beds on either side of Twentynine Mile Creek is discordant, indicating a plunging anticline or a fault along the trend of the creek.

PROPERTY GEOLOGY

The area of economic interest is on the ridge forming the divide between Twentynine Mile Creek and Harvey Creek. The ridge is divided into east and west halves by a saddle. The trace of the southwestern thrust on these ridges suggests the fault is folded on the east ridge. Strike dip, and drillhole data on the eastern ridge suggest a curved surface that dips steeply south on the north slope. Alternatively, more than one fault surface may be present.

EAST RIDGE

The hangingwall rocks on the east ridge consist of an east to northeast-dipping section ranging from the Proterozoic Kintla Formation to the Devonian Fairholme Formation. The boundary between Proterozoic clastic sediments and Paleozoic carbonates is marked by gritty quartzites of the Cambrian Flathead Formation (Figure B-5-1). These gritty quartzites seem discontinuous along strike.

The east ridge sequence is cut by fine-grained and porphyritic intrusions with variable geometry, including sills, laccoliths, wedge-shaped masses, dykes and breccias. A thick but discontinuous sill appears to lie at the base of the Paleozoic carbonates. Intrusive rock types include cream-colored alkali trachyte, greenish aegirine phonolite (tinguaite) and minor dacite and altered diabase. These intrusives are cut by quartz±sanidine±aegirine veins and pegmatitic impregnations.

Extensive areas of brecciation are associated with the intrusive rocks. The breccias are highly variable, ranging from strongly fractured country rock (crackle breccia), to angular displaced blocks, to heterolithic breccias with rounded fragments (including those of the intrusive itself). In the latter the matrix consists of limonite-stained comminuted country rock with crystal fragments. In areas of carbonate wallrock the matrix is very calcareous and limonitic. Heterolithic breccias tend to be elongate along strike and in one case confined between sills.

In one locality on the east ridge crustiform aragonite lines open cavities in a limestone breccia. This probably represents the last mineralizing event in the area.

WEST RIDGE

The west ridge is less well exposed. The proportion of intrusive rocks is much higher than on the east ridge. Intrusive rocks form dense stockworks of dykes, sills and one or more plug-like masses. The strike and dip of sporadic Proterozoic exposures is uniform, suggesting they are not detached or rotated. Small-scale quartz veining is more prevalent than on the east ridge.

ENIGMATIC EXPOSURES

Pebbles of alkalic instrusive rocks are found in lithologies within and adjacent to fault zones. In one exposure at the southwestern thrust (UTM 5454650N, 667550E) pebbles of trachyte are found in chaotic mixtures of Alberta Formation shale, carbonaceous sandstone and Kintla Formation siltstone. In a second exposure (UTM 5455100, 669900E) cemented pebbles of trachyte within a reddish sheared matrix are exposed at the faulted contact between Alberta Group shales and Paleozoic carbonates. A tectonic origin is attributed to the pebbles in these exposures. In a third exposure, pebbles of intrusives occur in steeply dipping pebbly sandstones (Alberta Group?) immediately adjacent to a faulted contact with alkalic intrusives (UTM 5456100N, 666130E). A waterlain sedimentary origin seems more likely for these pebbles and this further suggests a period in which the instrusives were unroofed and eroded prior to faulting.

PETROGRAPHY AND ROCK DESCRIPTIONS

The following descriptions are based on examination of about a third of the number of thin sections recently made available.

ALKALI TRACHYTES

Alkali trachytes represent the greater part of the intrusive material. Hand specimens are distinctively leucocratic, and holocrystalline with a microcrystalline matrix. The color is white or yellowish becoming reddish with increasing amounts of iron-oxide in the matrix.

As seen in thin section, the texture is always porphyritic. Phenocrysts are usually euhedral or subhedral sanidine or anorthoclase ranging from 0.5 to 20 millimetres in length. In some locations on the western ridge phenocrysts consist mainly of albite. Fluidal textures are common and result from subparallelism of feldspar plates and laths. Protoclastic texture (flow after partial consolidation with resulting granulation of crystals±ground mass) is apparent in several thin sections.

The matrix is commonly microcrystalline and trachytic with frequent minute cavities. Sanidine is its main constituent. Randomly distributed in the matrix are hydrothermal fillings of fluorite, barite, adularia and calcite. No fresh nepheline was observed but sericitic pseudomorphs after nepheline are common.

Accessory minerals include euhedral grains of apatite and baddelyite. The latter is probably a product of the alteration of zircon.

The pale color of the alkali trachytes gives a somewhat false impression of extensive alteration. It is of moderate intensity, as observed in thin section. With the exception of nepheline, original minerals are quite well preserved. The alteration is characterized by early sericitisation of feldspars (and nepheline) and late carbonatization and potassic metasomatism. Argillic alteration is weak.

Some trachytes close to contacts with tinguaites show intensive metasomatic albitisation of potassium feldspars. Silicification is common, particularly on the western ridge, where it is related to quartz-sanidine veins and impregnations. Quartz and quartz-sanidine veins do not carry sulphides. Up to a few per cent disseminated pyrite is present in a number of locations but distribution appears random. On the western ridge fluorite may accompany the pyrite and traces of galena.

Modal analyses of alkali trachytes are presented in Table B-5-1.

TABLE B-5-1.
MODAL ANALYSES OF ALKALI TRACHYTES
(EXPRESSED AS VOLUME PER CENT)

	A28-0	A23-3c	A27-4a	A31-3a
K-feldspar	1.0	53.8	86.8	42.9
Albite	40.0	24.1		
Post-nepheline sericite	4.6	?	8.0	
Sericite	1.1	8.8	4.9	8.7
Epidote	0.1			
Fluorite				4.2
Apatite				0.1
Baddelyite	1.6	0.2	0.1	0.9
Jarosite		3.8	0.2	
Groundmass	51.5	9.1		40.0
Pyrite				3.0
	99.9	99.8	100.0	99.8

TINGUAITES

The tinguaites are distinguished from alkali trachytes in the field by their greenish color and freshness. They are porphyritic with a fine-grained granular groundmass. Occasionally they are almost phaneritic. Xenoliths of more mafic or felsic syenitic material are present in the sill-like bodies.

Phenocrysts include euhedral sanidine, anorthoclase and two pyroxenes, aegirine and aegirine-augite. In thin section aegirine needles are peripheral to the later crystallising feldspars. Analcite or natrolite pseudomorph after nepheline, but fresh nepheline is present in xenolithic material. Melanite garnet is occasionally found.

Alteration is limited in the thin sections examined. Pyroxenes are sometimes altered to fibrous sodic amphibole (arfvedsonite) or less frequently to biotite. The principal alteration appears to be zeolitic, although a cursory glance at recently acquired thin-sections suggests carbonatization and crosscutting veins of adularia are also present.

Modal analyses of tinguaites are presented in Table B-5-2.

TABLE B-5-2.
MODAL ANALYSES OF TINGUAITES (PHONOLITES)
(EXPRESSED AS VOLUME PER CENT)

	A23-16	S4-6a(B)	S8-1	S8-1a(B)
K-feldspar	58.8	60.6	62.0	52.9
Nepheline		1.7	0.5	2.2
Analcite	9.1	4.3	9.6	5.8
Pseudoleucite				2.5
Natrolite	2.9	14.7		17.8
Sericite	11.5		8.1	
Aegirine	13.6	15.7	13.7	17.5
Arfvedsonite	1.7	1.8		1.1
Hornblende		1.2		
Carbonates	0.8		3.2	0.2
Chlorite			2.4	
Zeolite	1.3			
Accessories	0.3		0.5	
	100.0	100.0	100.0	100.0

QUARTZ-SANIDINE VEINS

The quartz-sanidine veins can be up to a metre thick but are usually a few decimetres or less. They consist of euhedral sanidine and subhedral quartz with variably distributed aegirine. The quartz content is surprisingly high (30-50 per cent).

Although quartz is always subhedral against pyroxene and potassium feldspar its characteristic polygonal structure is outlined by solid inclusions of circular aegirine following the hexagonal pattern of quartz prisms. The origin of these late-stage high-silica rocks is a mystery but the silicification of trachytes is probably related to them.

Modal analyses of quartz-sanidine veins are presented in Table B-5-3.

TABLE B-5-3.
MODAL ANALYSES OF QUARTZ SANIDINE VEINS
(EXPRESSED AS VOLUME PER CENT)

	A7-6	A23-5a	A23-56	A27-6	S8-2
Quartz	40.6	30.3	50.9	44.4	28.2
K-feldspar	35.6	67.6	44.8	51.2	61.6
Aegirine	23.3	0.5	1.8	3.2	7.4
Arfvedsonite					1.0
Jarosite		1.6	2.4	0.8	1.7
Accessories	0.5		0.1	0.4	
	100.0	100.0	100.0	100.0	99.9

DIABASES

Three exposures of diabase are known on the east ridge and a fourth is suspected on the west ridge. Exposure is very limited but tracing subcrop suggests a sill geometry. In hand specimen the rocks are dark green with diffuse pale spotting and a remnant felted fabric.

In thin section it is apparent these rocks are highly altered. The plagioclase is saussuritised and contains prehnite in addition to the standard alteration products of epidote, zoisite, sericite and secondary albite. Pyroxene is present but much of it is altered to chlorite and actinolite.

Darker spots comprise chlorite with peripheral grains of anatase. Lighter spots are calcite with pyrite in a form suggestive of miarolitic filling. Magnetite is abundant in these rocks.

Modal analyses of diabases are presented in Table B-5-4.

TABLE B-5-4.
MODAL ANALYSES OF DIABASES

	A6-4(B)	A27-7a	A27-7c
Quartz	3.1		
K-feldspar			
Plagioclases	38.2	20.7	53.2
Pyroxene	18.8	23.2	
Hornblende			2.0
Biotite .		3.7	
Apatite	0.2	0.7	2.6
Magnetite	6.0	10.0	11.8
Tremolite	2.5	5.8	
Epidote	3.1	7.6	2.0
Prehnite	1.7	3.2	
Chlorite	19.7	11.5	20.5
Sericite	3.2	10.5	
Carbonates	3.3	2.7	7.0
Anatase			0.5
	99.8	99.6	99.6

DACITES

The principal body of dacite lies immediately east of the enigmatic normal(?) fault that bounds the tectonic window. It is intrusive into Paleozoic carbonates. The rock is fine grained, dark and porphyritic. The principal alteration is carbonatitic and chloritic, (i.e. basically propylitic).

Modal analyses of dacites are presented in Table B-5-5.

TABLE B-5-5.
MODAL ANALYSES OF DACITES

	A8-2	AL 31-1	A24-58
Quartz	0.9	1.1	
K-feldspar		14.1	2.6
Plagioclase	15.7	28.6	26.2
Groundmass	62.9	33.2	43.9
Amphibole			0.9
Biotite			0.3
Saussurite			6.2
Chlorite	7.6	7.6	
Carbonates	7.5	9.3	13.5
Accessories	0.7	0.5	0.1
Pyrite	4.7	5.6	6.1
	100.0	100.0	99.8

MINERALIZATION

The most common mineralization observed on the property is pyrite with minor fluorite, barite and traces of galena. This mineralization occurs within the intrusive bodies or in adjacent sediments, particularly the Paleozoic carbonates. Old and new mineral occurrences are summarized below.

FLUORITE

Fluorite has been noted in a number of locations including:

* the lower slopes on both sides of the west ridge. Minor fluorite (grains a few millimetres accross) is found in pyritic alkali trachytes, (UTM 5455600N 665650E);
* the east ridge at the contacts of alkalic sills with Paleozoic carbonates;
* the east ridge in a contact zone of brecciated carbonate and syenite 3 metres wide, near the contact between Proterozoic and Paleozoic rocks (Williams and Jones, 1971);
* the south side of Twentynine Mile Creek. Patches of dark purple to blackish fluorite up to 10 centimetres wide are found with pyrobitumen in the Cambrian Elko Formation at UTM 5452650N, 670650E.

BARITE

A vein of barite is exposed on the north slope of the east ridge at UTM 5455050N, 669850E.

Pyrite, Chalcopyrite

Trachytes may contain up to a few per cent disseminated pyrite, but due to limited exposure, the distribution of pyritic trachyte is not well defined.

Traces of chalcopyrite are associated with pyrite in a single outcrop of chloritized dacite on the east ridge at UTM 5454150N, 669150E.

Malachite-stained fragments were found on the road leading to drill sites on the south side of Twentynine Mile Creek at UTM 5452700N, 670600E.

DISCUSSION

A uramium-lead age of 98.5±5 Ma is reported by geochronologist Don Murphy of the Geological Survey of Canada from a drill-core sample submitted by Dave Grieve of the Ministry. This age indicates crystallization of the intrusives occurred in the Cretaceous (late Albian or early Cenomanian). This age is compatible with field relationships which show no intrusive contact between the Late Cretaceous Alberta Group and the alkalic rocks. The age is virtually identical to that reported for the Crowsnest volcanics, (98 and 100 Ma, Currie, 1976).

Whole-rock analyses of the intrusive rocks are still pending at time of writing. However results of sampling by Fox Geological Consultants Ltd. in 1987 were made available to the writers. The petrological classification of hand specimens can only be guessed at but the analyses of even the more mafic varieties meet the criteria for alkaline rocks.

These rocks form part of the Crowsnest alkaline province, identified as having a high exploration potential for precious metal deposits (Werle *et al.*, 1984). This chemistry and petrography is similar to host rocks at other alkalic porphyry precious metal deposits, for example, the Zortman-Landusky mine in Montana (Wilson and Kyser, 1988) and the Allard stock in Colorado (Werle *et al.*, 1984). There are also similarities in the porphyry style of brecciation, potash metasomatism, and late stage deposition of sanidine, quartz, calcite and fluorite from hydrothermal solutions.

A few differences stand out: argillic alteration at Flathead is much less pronounced than at Allard or the Zortman-Landusky. Copper is rarely anamalous in Flathead intrusive rocks.

In spite of the differences, further exploration for gold is planned based on some recent encouraging drill results. The areas of current or potential interest based on the writers' work to date and an assessment of previous efforts include:

* paleozoic carbonates above some of the larger sills on the east ridge;
* alkali trachytes on the west ridge that are sporadically pyritic, fluoritised, carbonatized and are possibly close to the roof of a small plug;
* areas where more mafic intrusives are found together with alkali trachytes. There is a suggestion that more pyrite was released where magmas of diverse composition reacted.

ACKNOWLEDGMENTS

This project is a contribution to the Canada/British Columbia Mineral Development Agreement.

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ALERT BAY 82L

WHITE ELEPHANT (082ISW042)

(Fig. B1, No. 06)

By W.A. Taylor

LOCATION:	Lat. 50°09′ Long. 119°33′ 82L/4E VERNON MINING DIVISION. 24 kilometres southwest of Vernon, 4 kilometres west of Okanagan Lake and 2 kilometres east-northeast of the confluence of McMullen and Shorts creeks. Elevations range from 1220 metres to 790 metres.
CLAIMS:	Crown Grants; WHITE ELEPHANT (Lot 4880), BABY BELL FRACTION (Lot 4924), SKOOKUM FRACTION (Lot 5043), LORA BELL (Lot 4859), BUCKHORN (Lot 4860). Reverted Crown Grants; North (Lot 4825).
ACCESS:	From Westside Road along Okanagan Lake then exit at "The Valley of the Sun Recreational Estates", 2 kilometres north of Fintry, thence 8 kilometres along an unpaved, winding mining road to the workings.
OWNER/OPERATOR:	LUCKY SEVEN EXPLORATIONS LTD.
COMMODITIES:	Gold, silver.

INTRODUCTION

The White Elephant mine was one of the few gold and silver producing properties in the northwest Okanagan region. Production from 1922 to 1935 totalled 63.17 kilograms of gold and 9.55 kilograms of silver from 5140 tonnes of ore.

HISTORY

The original discovery on the White Elephant property was made by A.P. Clarke of Vernon in 1921, who found a quartz outcrop 15 metres wide, containing free gold and bismuth. A number of open cuts and a 2-metre exploratory shaft were excavated. In 1922 the workings were extended and about 264 tonnes of ore grading about 50 grams gold and 20 grams silver per tonne were mined. In 1924 Okanagan Premier Mines Ltd. extended the original shaft to a depth of 30 metres and drove a 61-metre crosscut. In 1928 Pre-Cambrian Mines Ltd. continued drifting in a northwesterly direction and in 1929 evaluated a lens of pyrrhotite mineralization. A 23 tonne per day flotation mill was installed to extract gold from the pyrrhotite lens, but due to a shortage of water this was not kept running steadily and total concentrate produced was less than 27 tonnes with low grades. The following year, attention was focused on the main body of quartz. A double-compartment inclined shaft was sunk and was intended to continue to a depth of 122 metres, with drifts and crosscuts every 30 metres. Production is recorded between 1933 and 1935, peaking in 1934 when more than half of the total gold recovered from the White Elephant was mined. During that year a continuous ore shoot 4.5 to 7.6 metres wide was found between the 18-metre level and the bottom of the glory hole. A mine survey plan from 1935 (Tassie, 1935) shows the inclined shaft extends to a depth of at least 90 metres, where a minimum of 30 metres of drifting was done. Lack of operating capital forced the company to cease operations in mid-1935. The property lay idle until the summer of 1950 when an unsuccessful attempt was made to dewater the workings.

Sporadic contract work on the White Elephant and surrounding claims, since 1978, has consisted of mapping, soil geochemistry and geophysical surveys. In 1988 Lucky Seven Exploration Ltd. drilled 5 diamond-drill holes totalling 500 metres.

GEOLOGICAL SETTING

The geological setting of the White Elephant property is illustrated in Figure B-6-1. Devonian to Triassic Harper Ranch volcaniclastic rocks on the west side of Okanagan Lake are intruded by large plutons of Middle Jurassic "Nelson complex" granodiorites which are cut by volcanic dykes of probable Eocene age.

PROPERTY GEOLOGY

The surface geology around the mine workings is illustrated in Figure B-6-2. The workings are developed in a large "plug" entirely within the granodiorite. A glory hole 15 metres long by 7 metres wide is oriented northeasterly, along the surface projection of the main inclined shaft. The shaft collar is at the southwest end of the glory hole. Here exposures of granodiorite are cut by at least two narrow basalt dykes. These dykes are

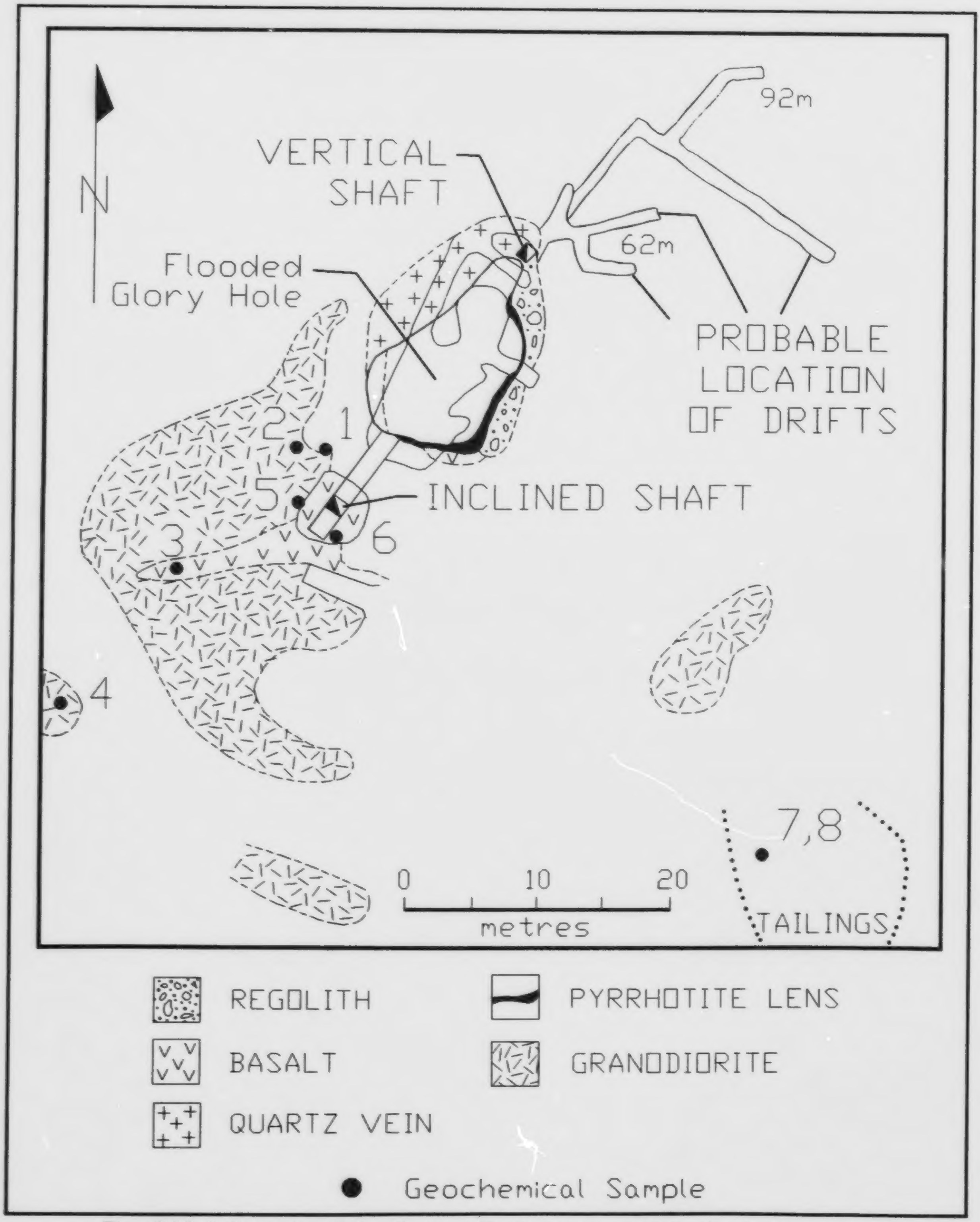
N
VERTICAL SHAFT
92m
62m
Flooded Glory Hole
PROBABLE LOCATION OF DRIFTS
2
1
5
INCLINED SHAFT
6
3
4
7,8
0
10
20
metres
TAILINGS
REGOLITH
PYRRHOTITE LENS
BASALT
GRANODIORITE
QUARTZ VEIN
Geochemical Sample

Figure B-6-2. Surface geology of mineralized zone. Plan shows most probable location of underground workings. (Modified from Sampson, 1987 and Tassie, 1935).

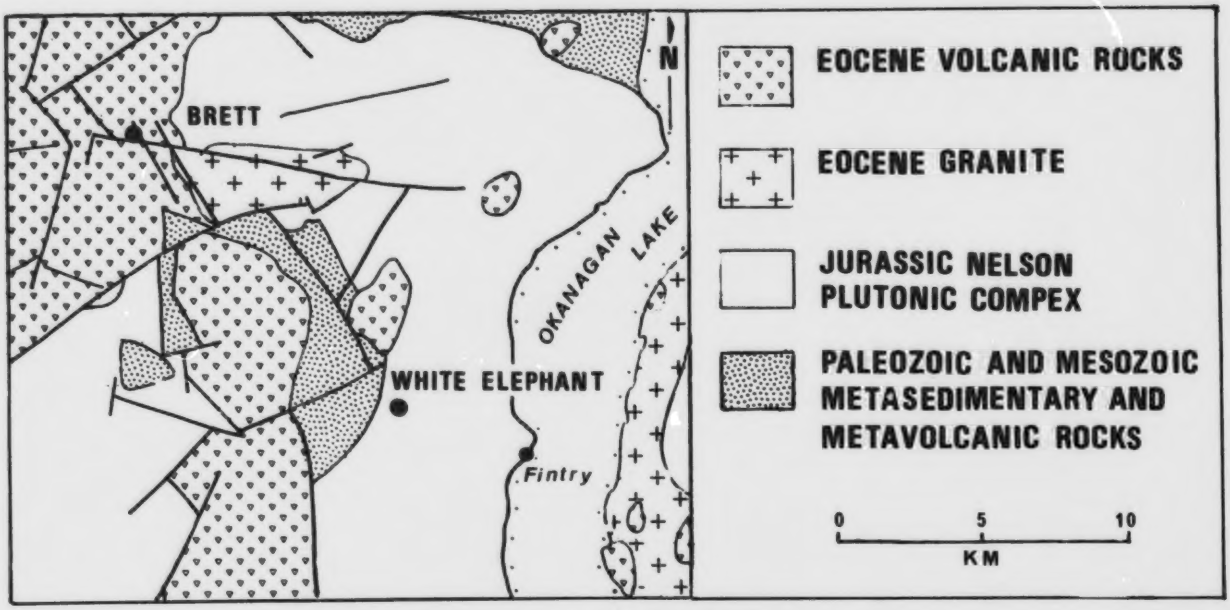
BRETT
WHITE ELEPHANT
Fintry
OKANAGAN LAKE
N
EOCENE VOLCANIC ROCKS
EOCENE GRANITE
JURASSIC NELSON PLUTONIC COMPEX
PALEOZOIC AND MESOZOIC METASEDIMENTARY AND METAVOLCANIC ROCKS
0
5
10
KM

Figure B-6-1. Geological setting of the White Elephant property.

both aphanitic and porphyritic in texture and strike 070 degrees with a shallow dip to the north. The existence of these dykes at various levels down the inclined shaft has been confirmed by previous work (Ministry of Mines Annual Report, 1932). Crosscutting relationships and textural observations clearly indicate these dykes post-date mineralization. Elsewhere near the property "remnants" of limestone have been documented (Minister of Mines Annual Report, 1921) presumably part of the Harper Ranch Group. A Pleistocene regolith is well exposed along the eastern margin of the glory hole.

MINERALIZATION

The quartz vein strikes northeast and dips 60 degrees northwest. It is exposed over a width of greater than 10 metres and is traceable for at least 30 metres on surface (Figure B-6-2). Its large dimensions and shape have led to the term "quartz plug". It is highly fractured and faulted and a pod of massive pyrrhotite up to 4 metres wide occurs at the footwall contact. Within the quartz plug, ore occurs in gold-rich shoots which dip at a shallower angle than the quartz body itself. The 1932 Minister of Mines report states that high-grade gold values occur in lenses and stringers in association with the pyrrhotite some distance away from the vein wall. One ore shoot is reported to have been up to 7.6 metres wide and 15 metres long. Pyrrhotite, pyrite, chalcopyrite and the gold-bearing bismuth telluride, tetradymite, form lens-like concentrations within the quartz body. Stringers and segregations of bismuth telluride, free gold and scheelite were also reported in 1932. The significance of the scheelite has yet to be determined as no large quantities of this mineral have subsequently been found.

According to old reports, ore from above the 60-metre level, contained 75 per cent to 90 per cent pyrrhotite, with some pyrite, telluride and free gold but below this level the ore tends to be pyritic rather than pyrrhotite rich (Sampson, 1987). On the lowest level of the mine, at approximately 90 metres depth, a 2-metre ore shoot grading 12.7 grams per tonne gold was reported, while values of up to 22.6 grams per tonne gold were returned from barren-appearing rock (Sampson, 1987). Three diamond-drill holes on this zone in 1988 cut highly fractured, strongly silicified granodiorite with strong pyrite-pyrrhotite mineralization but no high grade gold values; the ore shoot is apparently offset by faulting (D. Mitchell, Project Geologist, personal communication, 1989).

The White Elephant property represents an intrusive-hosted mesothermal quartz vein system in which high-grade gold ore shoots are associated with pyrrhotite, pyrite, chalcopyrite and bismuth-telluride mineralization. Slightly elevated copper and bismuth values sometimes correspond with anomalous gold values (Table B-6-1). More extensive sampling is required to provide a precise correlation with other metals and path-finder elements.

TABLE B-6-1. GEOCHEMICAL ANALYSIS OF SELECTED SAMPLES FROM THE WHITE ELEPHANT PROPERTY
(SAMPLES COLLECTED IN 1988 AND ANALYSED BY ATOMIC ABSORPTION)

	Au ppb	Ag	Cu	Pb	Zn	Ni	Mo	Hg ppb	Sb	Bi
WE88-01 Quartz vein	51	<0.5	7	10	23	2	27	<10	<0.5	<4
WE88-02 Granodiorite (1 m from vein)	1	<0.5	6	13	76	3	<7	<10	<0.5	<4
WE88-03 Basalt (20 m west of vein)	1	<0.5	16	15	56	58	<7	<10	<0.5	<4
WE 88-04 Granodiorite	6	<0.5	7	22	72	4	<7	<10	0.5	<4
WE 88-05 Granodiorite (20 cm from vein)	1380	<0.5	17	20	69	3	<7	<10	<0.5	10
WE 88-06 Porphyritic basalt	31	0.5	16	24	94	22	<7	<10	<0.5	<4
WE 88-07 Vein/sulphide grabs	9180	0.5	178	5	6	4	<7	<10	<0.5	47
WE 88-08 Masive pyrrhotite	132	4	900	7	21	15	<7	70	2	<4

The potential for high-grade pockets of gold may be present along a northeasterly trending fracture zone, or in en echelon faults at depth. Because of the present condition of the workings, further drilling of the property would seem to be the most effective and efficient exploration approach.

ACKNOWLEDGMENTS

The enthusiastic cooperation of Mr. Charles I. Brett during a field visit is much appreciated. Richard Meyers, District Geologist, Kamloops, supervised and edited the work and geochemical analyses were provided by the Ministry of Energy, Mines and Petroleum Resources Laboratory.

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GOLDEN 82N

THE GOLDEN CLUSTER OF DIATREMES AND DYKES

(Fig. B1, No. 07)

By O.J. Ijewliw and D.J. Schulze

INTRODUCTION

Alkaline diatremes and dykes of probable Paleozoic age occur in three areas of southeastern British Columbia; the Ospika River diatreme in the north (Pell, 1987a, b), the central Golden cluster (Ijewliw, 1986, 1987; Ijewliw and Schulze, 1988; Pell, 1987a, b), and the Cranbrook-Bull River group in the south (Helmstaedt *et al.*, 1988; Ijewliw, 1986, 1987; Pell, 1986, 1987a, b). The cluster of diatremes and associated crosscutting dykes northeast of Golden is situated within a Cambro-Ordovician stratigraphic and structural unit (Pell 1987a, b) and may be coeval. In this report we characterize and classify five of the Golden diatremes, and examine the relationships among the rocks in the five localities.

Exploration activity, with a view to diamond potential, began in the early 1980s and Assessment Reports dated 1983, 1984 have been prepared by K.E. Northcote and Associates on the Bush River (Larry Claim), Lens Mountain (Jack Claim) Mons Creek (Mike Claim) and Valenciennes River (Mark Claim) for C.F. Mineral Research Ltd. and Dia Met Minerals Ltd., both of Kelowna and Aar Resources Inc. of Vancouver. Bulk sampling of diatremes and stream material resulted in a report of kimberlitic indicator minerals from the Mike, Jack and Mark Claims and of micro-diamonds from the latter two. Our petrographic examination does not support the designation of these rocks as either kimberlites or lamproites, two rock types which are mined for diamonds.

OUTCROP CHARACTERISTICS AND PETROGRAPHY

BUSH RIVER DIATREMES AND DYKES (LARRY CLAIM)

Three diatremes, designated SW - southwest, WC - west central, and NE - northeast, are located at 52°05′ north and 117°23′ west; (Pell, 1987b). The outcrop sizes, in metres, are: SW = 6 wide x 15 high; WC = 50 wide x 100 high; NE = 400 long x 100 wide x 20 high. The SW diatreme cuts subhorizontal shales and limestones and has a massive core with a margin foliated parallel to the contact with the host rocks. The host rocks are not hornfelsed at the contact. The contact of the WC diatreme with its sedimentary host rocks is exposed in a cliff wall although most material examined exists as talus blocks, up to 10 cubic metres in size at the base of the cliff. Some breccia blocks are cut by massive, dyke-like material. The NE diatreme stands in relief on a plateau and is crosscut by several dykes. Foliation is not evident (Figure B-7-1).

In general, the diatreme breccias, weather red, green or rusty brown and contain abundant angular to subrounded foreign material including fragments of sedimentary country rock, altered crystalline rocks and autoliths. Clast to matrix ratio is about 3:2, with 99 per cent of the clasts being of sedimentary origin (limestones, shales, quartzites). The autoliths are igneous fragments similar to the diatremes and associated dykes. The clasts range in size from 1 to 75 centimetres across, and mainly 10 to 40 centimetres. The fragments often have a narrow rind of mica-rich matrix material.

The fresh surface is a dull grey-purple colour. Randomly oriented, silvery grey altered mica constitute the mesoscopic phenocryst assemblage in a groundmass of carbonates and mica.

In thin section, the diatreme phase comprises 25 per cent euhedral to subhedral olivine pseudomorphed by either serpentine, or calcite and quartz with magnetite rims, cloudy brown plagioclase (An30), biotite with darker brown pleochroic rims, euhedral calcite, and trace amounts of subhedral to anhedral magnetite and apatite. The groundmass is dusty carbonate with interstitial quartz, serpentine, magnetite, chlorite, a network of felsic microlites and unresolvable material. Globular structures are set in a fine-grained carbonate groundmass and consist of dark matrix material with a core of altered biotite or lithic fragment.

Several subparallel dykes are present, ranging in length from 50 to 600 metres and in width from 0.5 to 2.5 metres. Bifurcation and remerging occurs along the length of some dykes. Narrow fine-grained apophyses are common and are usually no more than 2 to 3 metres long. The dykes have fine-grained, flow-banded margins with coarser centres. The dykes in the northeastern section of the map area crosscut the NE diatreme and the western ridge dyke may continue to crosscut the WC diatreme. Quartz and calcite veins transect the dykes.

The weathered dyke surface is rusty and the fresh surface is a dull grey colour. Randomly oriented,

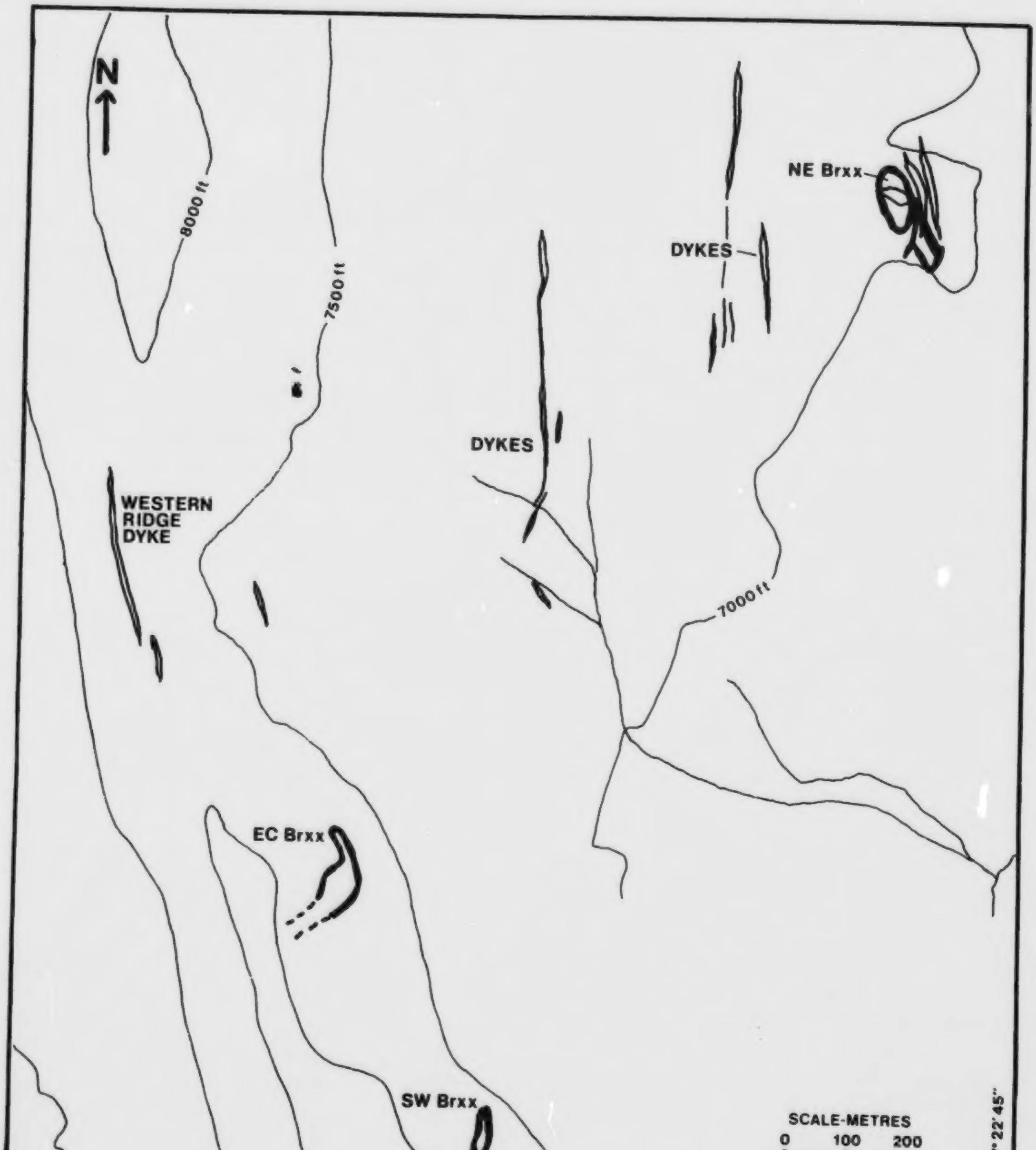
N
8000 ft
7500 ft
7000 ft
NE Brxx
DYKES
DYKES
WESTERN
RIDGE
DYKE
EC Brxx
SW Brxx
SCALE-METRES
0
100
200
117°22'45"
52°04'15"

Figure B-7-1. Map of the Bush River diatremes and dykes (modified after Pell, 1987b).

altered, silvery micas, ranging in size from less than 1 millimetre to 1 to 3 centimetres are evident in outcrop.

In thin section, the dykes are seen to be porphyritic with macrocrysts, phenocrysts and glomerocrysts of olivine, some with red-brown spinel inclusions. The olivine is altered to calcite, serpentine and talc with tangential, altered biotite. Macrocrysts of altered, normally-zoned biotite occur in a groundmass consisting of a network of altered biotite with secondary, dusty calcite, minor serpentine, spinels and opaques.

LENS MOUNTAIN DIATREME (JACK CLAIM)

This multiphase diatreme underlies a narrow ridge at 51°54′ north and 117°07′ west trending northwest between two permanent snowfields. From edge to edge, there is a variation in texture and clast size and clast/matrix ratio. To the southeast, the diatreme is foliated with an orange weathered surface and light green fresh surface; contains 25 per cent sedimentary rock inclusions ranging in size from 0.2 to 2.0 centimetres and consisting of limestone clasts and sand grains. In the saddle of the ridge, the rock is light green and aphanitic with disseminated pyrite and an absence of foreign clasts. To the northwest are alternating outcrops of limestone 30 to 40 metres across, and coarse diatreme material containing 20 per cent subangular limestone clasts (averaging 5 to 10 centimetres across). The northern diatreme phases weather dark red with a dark grey fresh surface.

In thin section, the "sand-grain rich" phase consists of 25 per cent rounded quartz grains, some with resorbed rims, 20 per cent fine-grained carbonate clasts, 5 per cent elongated, relict lapilli (with a preferred orientation), and 3 per cent subhedral to anhedral, altered grains replaced by calcite and rimmed by very fine-grained sphene and opaque minerals. The matrix is fine-grained carbonate.

Thin sections from the saddle contain up to 10 per cent disseminated pyrite, and lapilli rimmed with pyrite. Apatite phenocrysts are altered in the core. The matrix consists of fine grained carbonate and opaque minerals.

The coarse breccia phase consists of subangular clasts of limestone and relict phenocrysts in a carbonate matrix. This porphyritic rock contains 15 per cent phenocrysts now entirely pseudomorphed by fine-grained quartz and/or calcite, some retaining traces of simple twinning, with a morphology suggesting relict sanidine. Altered crystals possibly of titanamphibole or annealed recrystallized sphenes have been replaced by calcite but retain a rim and inclusions of very fine grained sphene. The groundmass is extremely fine-grained grey material with calcite patches.

MONS CREEK DIATREMES AND DYKES (MIKE CLAIM)

Two small diatreme outcrops, are located at 51°49′30″north and 117°00′30″west. The larger, southern outcrop is crosscut by a dyke and there is a second, parallel dyke outside the diatreme. Abundant fresh float was found between the two outcrops and they are assumed to be part of the same body. The small, northern outcrop 1 metre wide, is discordant to bedding by only a few degrees and extends for 3 metres upslope before it pinches out. It is strongly foliated parallel to its margins and to foliation in the host sedimentary rocks. The southern diatreme is 100 metres wide and appears to pinch out high in the cliff face about 200 metres above. It is foliated at its western edge; clast size increases towards the centre. The foreign clasts are 99 per cent angular dolostone or limestone with rare fragments of dyke-like material. The weathered surface is a rusty buff colour with a light grey fresh surface. Quartz grains occur locally in the matrix.

The dykes cutting the southern outcrop are both less than a metre wide, fine grained, and similar in colour to the diatreme. Rare, dark green pyroxene phenocrysts occur in an aphanitic matrix.

In thin section, the northern and southern diatremes have a porphyritic texture, but it is almost completely altered. Calcite replaces the phenocrysts that may have been olivine, some of which have red-brown spinel inclusions. The original identity of other pseudomorphed phenocrysts is uncertain. There is a preferred orientation to the elongated grains. The groundmass is a fine-grained aggregate of calcite, serpentine and talc with a trace of pyrite.

Texturally, the dykes resemble the diatremes and contain quartz aggregates replacing a lath-shaped, twinned mineral, possibly a feldspar. A few minute plagioclase grains (An25), partly replaced by calcite patches, are present. A phyllosilicate with sphene inclusions and rimmed with very fine-grained sphene is partly replaced by calcite. The groundmass is a very fine-grained aggregate of carbonate and chlorite, with minor amounts of quartz and pyrite.

Float samples have a dark green groundmass with mesoscopic biotite and pyroxene phenocrysts. Thin sections contain 5 per cent clinopyroxene (augite or diopsidic augite) macrocrysts with pink-brown titaniferous rims. Some grains have titaniferous cores and intermediate non-pleochroic areas. Zoning patterns are complex and variable. Most clinopyroxenes are sieve-textured with pockets of calcite, biotite, chlorite and serpentine. The cores are often irregular but have euhedral overgrowths. Olivine macrocrysts (2 per cent),

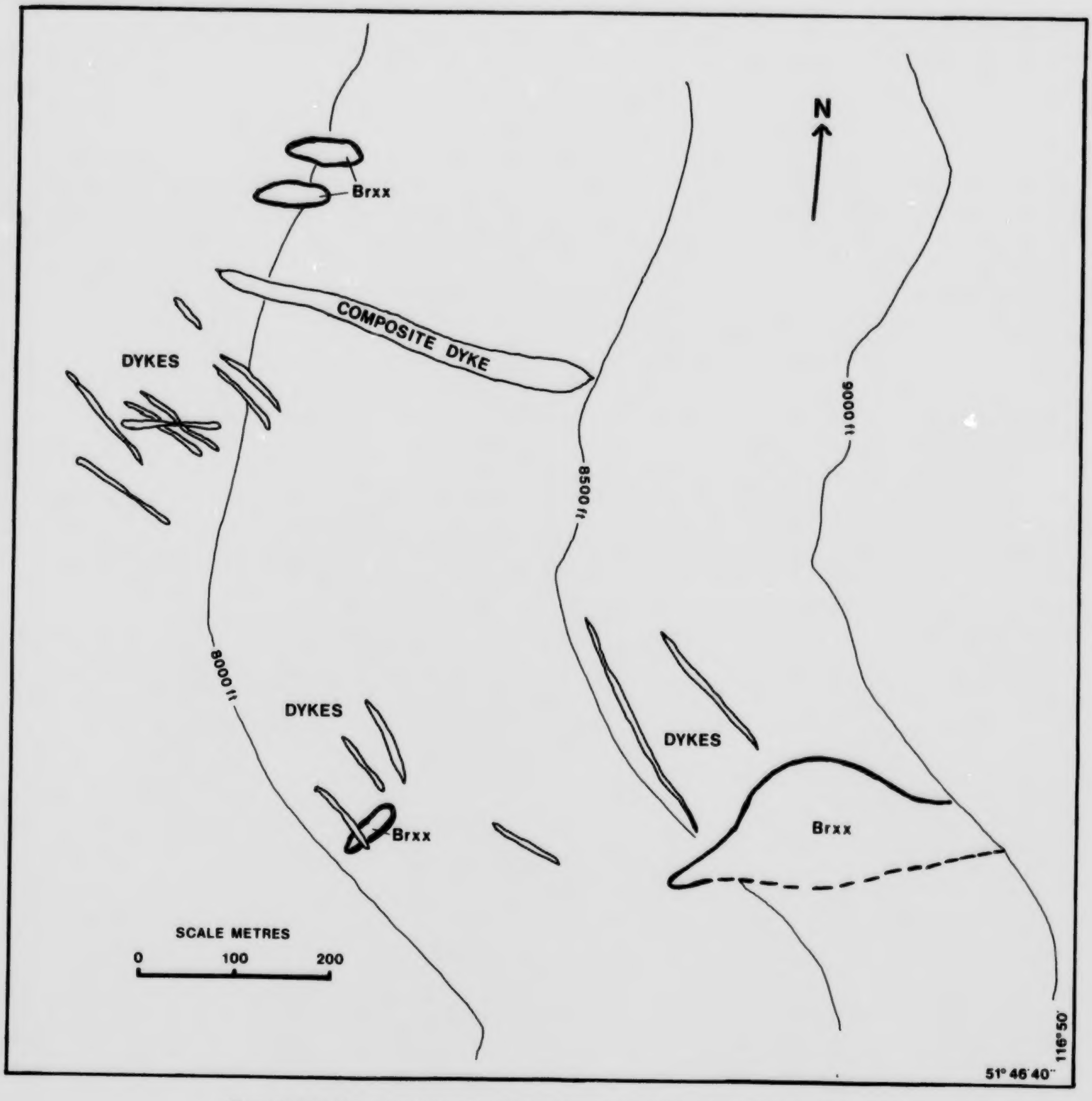
N
Brxx
COMPOSITE DYKE
DYKES
9000 ft
8500 ft
8000 ft
DYKES
DYKES
Brxx
Brxx
SCALE METRES
0
100
200
116°50'
51°46'40"

Figure B-7-2. Map of the Valencienne River diatremes and dykes (modified after Pell, 1987b).

some with red-brown spinel inclusions are completely pseudomorphed by calcite or chlorite. Clinopyroxene phenocrysts and microphenocrysts (30 per cent of the volume) have seriate size distribution and are zoned like the macrocrysts. Irregular shaped biotite phenocrysts (10 per cent) have sphene inclusions. Other microphenocrysts are biotite (3 per cent), sphene, occassionally with spinel cores (5 per cent) and trace red-brown spinels, some as inclusions in olivine pseudomorphs. The groundmass consists of carbonate, chlorite, sphene, interstitial quartz, plagioclase (An25) and very fine-grained serpentine.

VALENCIENNE RIVER DIATREMES AND DYKES (MARK CLAIM)

Four diatremes and a series of subparallel crosscutting dykes are located at 51°47′north and 116°58′30″west (Figure B-7-2). Breccia dykes crop out at the northern end of the area. The diatremes and dykes intrude subhorizontal, carbonate country rocks which are strongly foliated, as are the diatremes.

The two southern diatremes are foliated at the margins and massive in the core. The rock is rusty weathered with a pale green fresh surface. Angular fragments of carbonates, shales and a few quartzites comprise 30 per cent of the rock volume. Their modal size is 2 centimetres, though 15-centimetre clasts are present. Altered spinel peridotite xenoliths occupy 1 to 3 per cent of the rock volume. Altered brown olivines and dark green spinels each make up about 2 per cent of the rock.

The two northern diatremes are narrow and smaller, and do not exhibit the variety of clast types that characterizes the larger southern ones. They are well foliated with angular clasts comprising 20 per cent of the rock volume. Dark green spinels are sparsely distributed.

The largest dyke, exposed just south of the northern diatreme pair, is a composite of massive and brecciated material. The contacts are either gradational or the breccia phase crosscuts the finer grained, clast-poor dyke phase.

Thin sections show the diatreme phase is tuffaceous with rounded and fractured quartz grains, autolithic fragments and sedimentary fragments. Locally it contains 40 per cent polymorphous inclusions ranging in size from 0.1 to 60 millimetres consisting of serpentine, serpentine and calcite, or calcite and quartz. Fractured red-brown spinels, round or angular, are present in trace amounts in the groundmass and within the polymorphous inclusions. The groundmass is composed of a dusty carbonate, spinels and pyrite.

A dozen dykes 1 to 2 metres wide outcrop in the area and are best exposed on the western slope. They are generally subparallel, though locally crosscutting and they cut the diatremes. The dykes are also subparallel to foliation in the host rocks.

The dykes differ from the diatremes as they contain very few foreign fragments and are cut by quartz and calcite veins. The weathered surfaces are tan or dark green; fresh surfaces are dull, medium grey-green. The dykes are porphyritic in hand sample with characteristic sieve-textured brown olivine pseudomorphs, altered euhedral clinopyroxenes, fine-grained micas and rare spinels.

Thin sections show the rock is strongly altered with porphyritic texture preserved in the form of pseudomorphs. Clinopyroxene pseudomorphs, recognized by their euhedral to subhedral outline and relict zoning, are replaced by a brown silicate. Olivine is pseudomorphed by calcite. Plagioclase (An10-20) phenocrysts with calcite blebs contain inclusions of pseudomorphed clinopyroxenes. The groundmass is very fine-grained carbonate, chlorite, serpentine and altered biotite.

The large northern dyke is porphyritic with 15 per cent altered pyroxenes, 10 per cent altered olivine rimmed with altered mica, and 10 per cent altered mica phenocrysts in a groundmass containing plagioclase (An10-25) and carbonate.

HP DIATREME AND DYKES (HP CLAIM)

The HP diatreme is located at 51°41′north and 116°57′30″west (Ijewliw, 1986; Ijewliw, 1987; Ijewliw and Schulze, 1988; Pell, 1986a, 1987b). It is roughly oval in shape and measures about 60 by 45 metres. Dykes, generally half a metre wide, with one composite dyke measuring 3 metres across, transect or run parallel to the diatreme and also crosscut each other. The wider and more closely spaced dykes are in contact with large limestone blocks. Another metre-wide dyke outcrops 200 metres northwest of the main diatreme.

The diatreme is weakly to moderately foliated along a north trend direction and contains abundant (30 to 40 per cent) elongated (parallel to foliation) marmorized clasts and 5 to 6 per cent megacrysts of black or bright green clinopyroxenes and biotite books in a fine-grained, grey-green groundmass. The megacrysts and small sedimentary clasts often core darker green, globular structures.

In thin section, the rock has a porphyritic and locally a globular texture. Clinopyroxene, biotite and spinel macrocrysts and phenocrysts and melanite microphenocrysts occur in an altered, fine-grained groundmass of calcite, chlorite, serpentine, talc and pyrite.

The clinopyroxene macrocrysts and phenocrysts are subhedral and are either green, with clear overgrowths, or entirely clear in plane polarized light. Some green clinopyroxene macrocrysts contain inclusions of euhedral apatite. All the clinopyroxene macrocrysts may have pockets of poly or monocrystalline calcite in addition to chlorite, muscovite and melanite. Crystal rims are sieve textured and resorbed.

Biotite macrocrysts and phenocrysts are subhedral and multiply zoned with dark, rounded cores and pale, subhedral rims. Biotite microphenocrysts are pale with narrow, dark rims.

Spinels are subangular to rounded, fractured, reddish brown in colour and unzoned. Some are rimmed by melanite.

Melanite garnet phenocrysts are locally abundant (up to 10 per cent volume) The garnets are euhedral, multiply and oscillatorily zoned with dark cores and yellow to clear rims. Melanites are also found in calcite pockets within green clinopyroxenes where they are euhedral towards the calcite and ragged towards the pyroxene contact.

Apatite phenocrysts are euhedral and occur as inclusions in green clinopyroxenes and dispersed in trace amounts throughout the groundmass.

The groundmass is composed primarily of fine-grained calcite, serpentine, chlorite, talc, biotite, muscovite, red-brown spinel, melanite and pyrite. Groundmass biotite is pale with narrow, brown rims. Groundmass melanite is anhedral, clear, and forms continuous masses in some thin sections.

Globular structures, cored by clinopyroxene, biotite or lithic fragments, consist of a dark mixture of groundmass material set in a matrix of calcite or groundmass material of similar composition. Some are rimmed with subhedral to euhedral, yellow or brown melanite sphene.

Larger, euhedral and anhedral, yellow melanites and subhedral and anhedral sphenes also occur in the spherical segregations and throughout the groundmass. Anhedral melanite is surrounded by calcite and sphene. Some of the euhedral melanites contain cores or inclusions of sphene, muscovite and/or apatite needles. Sphene and melanite are also intimately intergrown in very fine-grained aggregates in the groundmass.

CLASSIFICATION

Classification of the rocks in the Golden diatreme cluster is based on the work of Rock (1977, 1984, 1986) and the Streckeisen (1979) IUGS recommendations. Lamprophyre is defined as a porphyritic, volatile-rich, alkaline rock with essential biotite (or phlogopite) and/or amphibole making up 10 to 20 per cent of the phenocryst population. Table B-7-1 summarizes the mineral assemblages on which the following classifications are based.

TABLE B-7-1
SUMMARY OF MINERAL ASSEMBLAGES IN THE GOLDEN CLUSTER

DIATREMES AND DYKES

PIPE	PHENOCRYSTS (including pseudomorphs)	GROUNDMASS (primary or secondary)
Bush River	Olivine Plagioclase Biotite Spinel Apatite	Calcite Quartz Magnetite Sphene Serpentine
Lens Mtn.	Apatite Sanidine	Carbonate Sphene Quartz
Mons Creek	Clinopyroxene Biotite Olivine Plagioclase Spinel	Carbonate Sphene Chlorite Serpentine
Valencienne R.	Olivine Clinopyroxene Spinel Plagioclase	Carbonate Spinel Quartz Biotite
HP	Clinopyroxene Biotite Melanite Spinel Olivine	Spinel Carbonate Chlorite Talc Sphene Serpentine Perovskite

The Bush River suite is classified as olivine-kersantite, within the calcalkaline lamprophyre branch, based on modal mineralogy (including pseudomorphed minerals). Alternatively, it could be classed as a camptonite (alkaline lamprophyre). The kersantite classification, however, is based on the predominant hydrous phase, secondarily on the felsic minerals, thirdly on the ferromagnesian minerals. Most camptonites include essential amphibole (kaersutite, barkevikite) and may include biotite, whereas the kersantites have biotite as the primary hydrous mineral.

Classification of the Lens Mountain diatreme is precluded due to lack of definitive minerals. It is a pyroclastic, tuffaceous rock but with no clear evidence of a hydrous phase and so, unlike the other diatremes in this study, may not be a lamprophyre. The presence of titanaugite at Mons Creek, with plagioclase confined to the groundmass, is consistent with a biotite-camptonite classification. The Valencienne River suite is similar to the Mons Creek rocks and is also classified as a camptonite. The HP pipe is the best preserved and retains sufficient primary minerals to warrant classification as an aillikite within the ultramafic lamprophyre branch.

DISCUSSION

The dykes and diatremes of the Golden cluster contain representatives from three branches of the 'lamprophyre clan', as defined by Rock (op. cit.). From north to south, there is an apparent trend from the calc-alkaline kersantites at Bush River, through the alkaline camptonites of Mons Creek and Valencienne River, to the ultramafic aillikite at HP. This sequence bears some resemblance to the variation in lamprophyres in the Monteregian alkaline province of Quebec, where from east to west, the dominant variety of lamprophyre changes from camptonite through monchiquite to alnoite (Philpotts, 1974).

Rock (op. cit and 1987) has suggested that members of the different lamprophyre branches do not generally coexist but are restricted to particular geologic and tectonic settings. The variation within the Golden cluster, however, demonstrates that a diverse suite of lamprophyre magmas was generated and emplaced in response to extension along the western margin of North America in the early Paleozoic (Pell, 1987b; Helmstaedt et al., 1988).

It is postulated that an extensional tectonic regime contributed to conditions initiating the original lamprophyre melts and these conditions could also have caused the necessary fractures or zones of weakness allowing their emplacement in a linear array. The variation in the lamprophyre compositions may be due to variations in depth of melting, crustal residence time during ascent and interaction with crustal material.

ACKNOWLEDGMENTS

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VICTORIA 92B

LARA (092B110)

(Fig. B1, No. 08)

By Shielagh N. Pfuetzenreuter

LOCATION:	Lat. 48°52′ Long. 123°52′ 92B/13W VICTORIA MINING DIVISION. 24 kilometres north of Duncan, on Coronation Mountain.
CLAIMS:	SOLLY, TL, SILVER I AND II, FANG.
ACCESS:	West along Copper Canyon road from Highway 1 near Chemainus.
OWNER:	Laramide Resources Limited.
OPERATOR:	ABERMIN CORPORATION in 1988, now MINNOVA INC.
COMMODITY:	Gold, silver, copper, lead, zinc.

EXPLORATION HISTORY

Mineral Exploration in the area dates back to the late 1800s when massive sulphide mineralization was discovered on nearby Mount Sicker. The area has been sporadically prospected ever since. In 1979 the H-W deposit was discovered in a similar geologic setting at Buttle Lake. This acted as a catalyst for exploration in the Sicker Group; the Lara property was staked by Laramide Resources Limited in 1981 and a 65 per cent interest was optioned to Abermin Corporation the following year. Late in 1988 this interest was repurchased by Laramide for $2.3 million plus a royalty interest, and the property has since been optioned to Minnova Inc.

Outcrop in the area is sparse and much of the early work consisted of backhoe trenching to test soil sampling and geophysical anomalies. The Coronation zone was discovered in 1984 when a trench exposed weak polymetallic mineralization at a contact between foliated pyritic rhyolite and a more massive, coarse-grained quartz-eye rhyolite. Drilling beneath the trench intersected 8.3 metres of sulphide mineralization with an average grade of 3.6 grams gold and 67.5 grams silver per tonne, 0.68 per cent copper, 3.01 per cent zinc and 0.45 per cent lead.

RECENT ACTIVITY

By the end of 1988 some 230 diamond-drill holes, totalling almost 36 000 metres, had been completed, mainly in the Coronation zone, together with an underground bulk-sampling program. Drill-indicated reserves were estimated by Abermin as 528 886 tonnes averaging 1.01 per cent copper, 1.22 per cent lead, 5.87 per cent zinc, 100.09 grams silver and 4.73 grams gold per tonne.

The underground program, begun in April 1988, involved 700 metres of ramping and drifting. A 10 000-tonne bulk sample was mined and stockpiled on surface.

REGIONAL SETTING

The Lara property is underlain by Paleozoic Sicker Group rocks of the Cowichan - Horne Lake uplift, which extend from Saltspring Island to Port Alberni and represent the remnants of a Paleozoic volcanic arc. Regionally, the Sicker Group is unconformably overlain by basaltic rocks of the Triassic Karmutsen Group and intruded by related mafic sills. These older rocks are intruded by middle Jurassic Island Intrusions and unconformably overlain by Cretaceous sediments of the Nanaimo Group. Structures within the Sicker and Karmutsen rocks record a complex history of post-Triassic deformation (Yole and Irving, 1980).

The upper Devonian Sicker Group is made up of two formations: the Nitnat Formation consisting of mafic volcanic flows and pyroclastic rocks at the base, conformably overlain by andesitic pillow lavas and breccias, rhyolite, volcanic sandstone, siltstone, argillite and chert of the McLaughlin Ridge Formation, metamorphosed to lower-middle greenschist facies. In the Cowichan - Horne Lake uplift the Sicker Group is in fault contact or unconformably overlain by Mississippian epiclastic sediments of the Cameron River Formation. The base of the Cameron River Formation is marked by a thick sequence of chert and cherty tuff (Massey and Friday, 1987).

The uplifted block forms a folded, structurally complex, north-northwest-trending belt which appears to plunge gently to the west. A major reverse fault (the Fulford fault) places McLaughlin Ridge volcanics in contact with the younger Cameron River and Nanaimo

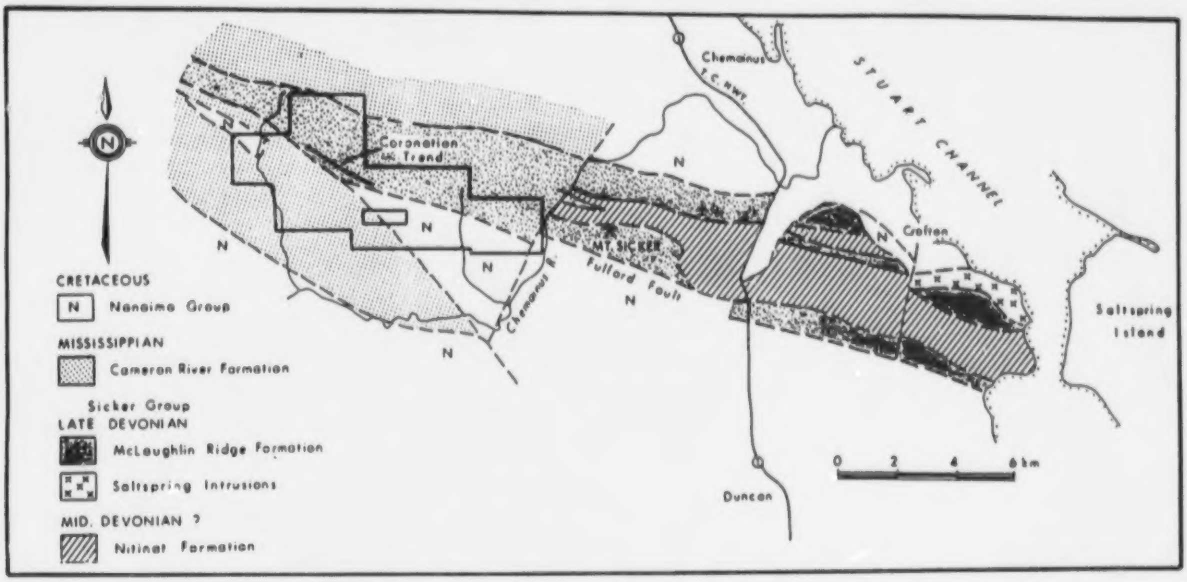
Chemainus
T.C. HWY.
STUART CHANNEL
Coronation Trend
N
MT SICKER
Fulford Fault
Chemainus R.
Crofton
Saltspring Island
Duncan
0 2 4 6 km
CRETACEOUS
Nanaimo Group
MISSISSIPPIAN
Cameron River Formation
Sicker Group
LATE DEVONIAN
McLaughlin Ridge Formation
Saltspring Intrusions
MID. DEVONIAN ?
Nitinat Formation

Figure B-8-1. Regional geology. Sicker group rocks outcrop in a folded, structurally complex, north-northwest-trending belt which appears to plunge gently to the west (modified from Bailes, Blackadar and Kapusta, 1987).

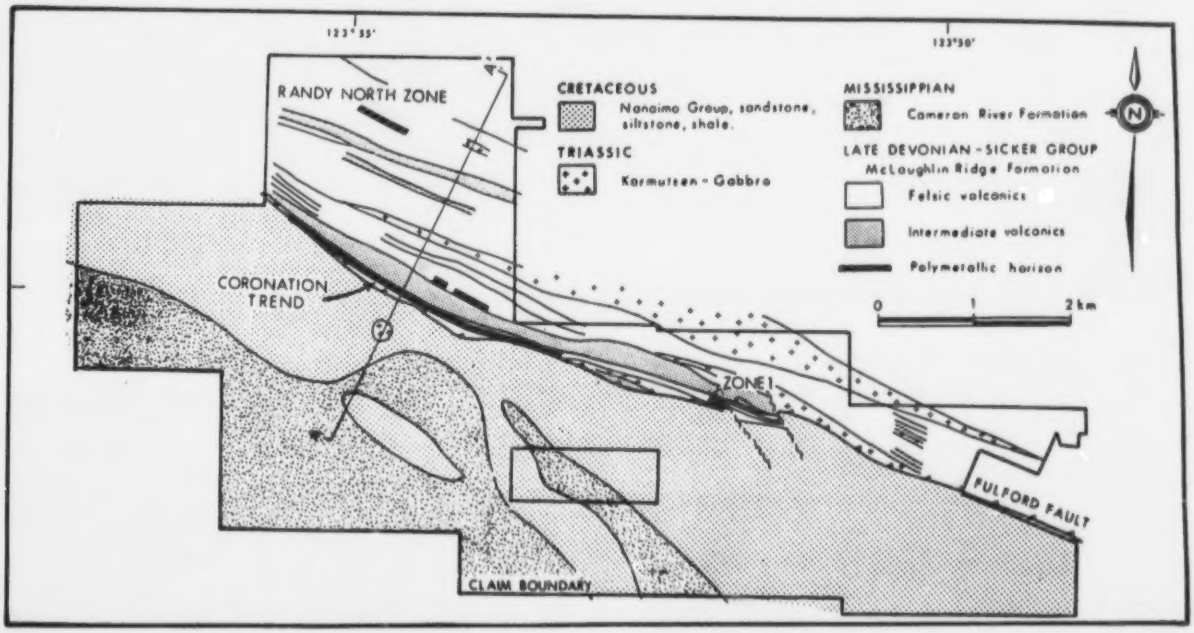
123°55'
123°50'
RANDY NORTH ZONE
CRETACEOUS
Nanaimo Group, sandstone, siltstone, shale.
TRIASSIC
Karmutsen - Gabbro
MISSISSIPPIAN
Cameron River Formation
LATE DEVONIAN - SICKER GROUP
McLaughlin Ridge Formation
Felsic volcanics
Intermediate volcanics
Polymetallic horizon
0 1 2 km
N
CORONATION TREND
ZONE 1
FULFORD FAULT
CLAIM BOUNDARY

Figure B-8-2. Property geology (modified from Bailes, Blackadar and Kapusta, 1987).

sediments and the block is cut by a number of younger transverse faults (Figure B-8-1).

PROPERTY GEOLOGY

The Coronation polymetallic sulphide zone is hosted by steeply dipping felsic rocks of the McLaughlin Ridge Formation, striking west-northwest and slivered by high-angle reverse faults (Figures B-8-1 and 2). This "rhyolite sequence", up to 75 metres thick, includes ash tuffs, lapilli tuffs, breccias, and quartz and feldspar porphyries. Minor interbeds of black argillite and buff-coloured volcanic mudstone are commonly used as marker horizons (Figure B-8-3).

The rhyolite sequence is structurally overlain by green intermediate volcanic rocks grading upwards from coarse-grained andesite to fine dacite tuff. Thin argillite beds and laminae are infrequent. Felsic interbeds, characterized by quartz eyes, occur throughout this "green volcaniclastic sequence", increasing toward the lower contact. The contact between the two sequences is fairly abrupt and accentuated by changes in colour, lithology, grain size, and sometimes a well-developed gouge zone (Bailes *et al.*, 1987).

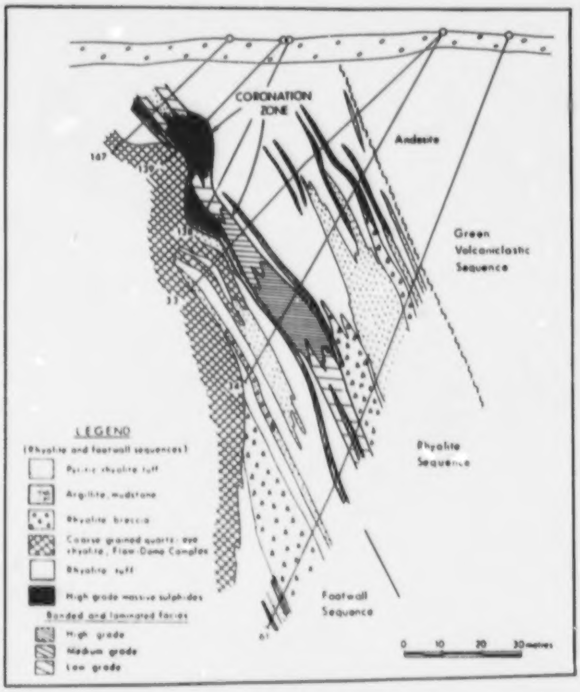
CORONATION ZONE
Andesite
Green Volcaniclastic Sequence
Rhyolite Sequence
Footwall Sequence
167
33
14
61
LEGEND
(Rhyolite and footwall sequences)
Pyritic rhyolite tuff
Argillite, mudstone
Rhyolite breccia
Coarse grained quartz eye rhyolite, Flow-Dome Complex
Rhyolite tuff
High grade massive sulphides
Banded and laminated facies
High grade
Medium grade
Low grade
0
10
20
30 metres

Figure B-8-4. Cross-section of the Coronation zone showing high-grade massive sulphide facies and lower grade banded and laminated facies. (modified from Bailes, Blackadar and Kapusta, 1987).

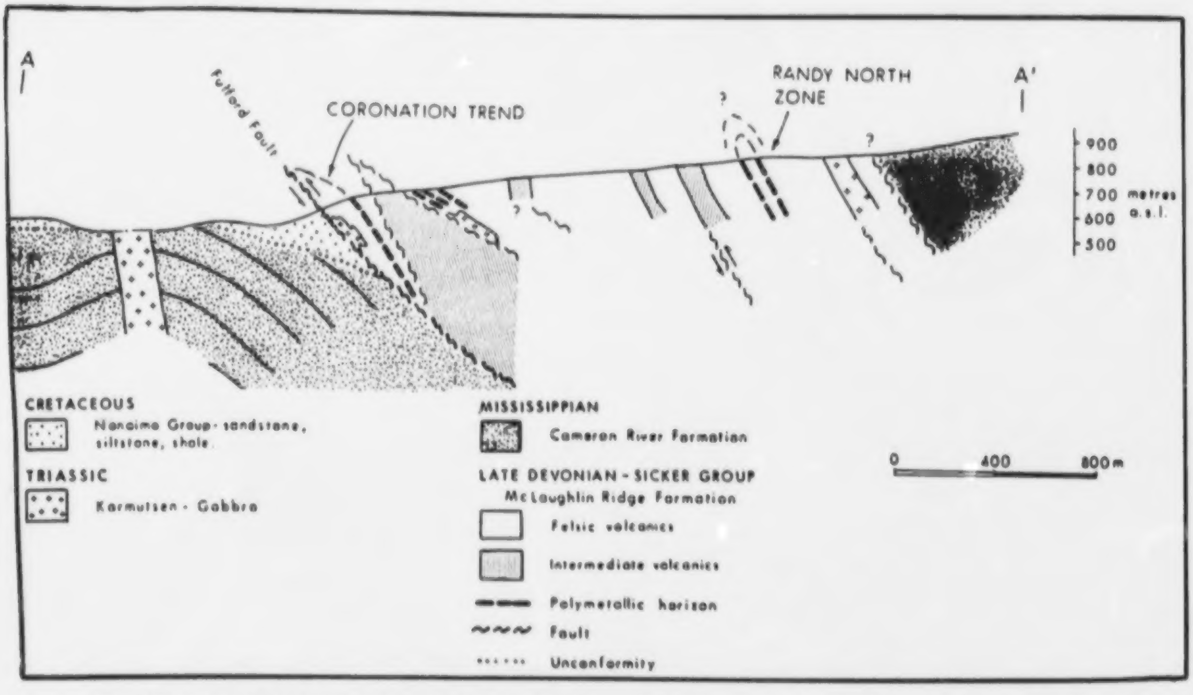
A
A'
Fulford Fault
CORONATION TREND
RANDY NORTH ZONE
?
900
800
700
600
500
metres a.s.l.
CRETACEOUS
Nanaimo Group - sandstone, siltstone, shale
TRIASSIC
Karmutsen - Gabbro
MISSISSIPPIAN
Cameron River Formation
LATE DEVONIAN - SICKER GROUP
McLaughlin Ridge Formation
Felsic volcanics
Intermediate volcanics
Polymetallic horizon
Fault
Unconformity
0
400
800 m

Figure B-8-3. Geological cross-section across the northwest part of property. The section line is shown in Figure B-8-2 (modified from Bailes, Blackadar and Kapusta, 1987).

MINERALIZATION

The Coronation zone (Figure B-8-4) has a strike length of 160 metres and an average thickness of 3.4 metres. Polymetallic mineralization consists of a stratiform, massive to banded zones of sulphides including pyrite, sphalerite, galena, chalcopyrite and lesser amounts of tetrahedrite and arsenopyrite, with a quartz-carbonate gangue. High-grade massive sulphide mineralization occurs locally but banded sulphides, in a silicified rhyolite up to 16 metres thick, is the predominant facies. Sulphides also form the matrix of extensive, well-developed breccia zones.

WORK DONE

1988: 700 metres of underground development; three diamond-drill holes totalling 268 metres; 10 000-tonne bulk sample stockpiled.

REFERENCES

Bailes, R.J. Blackadar, D.W. and Kapusta, J.D. (1987): The Coronation Polymetallic Massive Sulphide Deposit, Vancouver Island, *Northwest Mining Association*, Annual Meeting, Spokane, Washington, December, 1987.

Massey, N.W.D. and Friday, S.J. (1987): Geology of the Cowichan Lake Area, Vancouver Island (92C/16), *B.C. Ministry of Energy, Mines and Petroleum Resources*, Geological Fieldwork 1986, Paper 1987-1, pages 223-229.

Yole, R.W. and Iriving, E. (1980): Displacement of Vancouver Island, Paleomagnetic Evidence from the Karmutsen Formation, *Canadian Journal of Earth Sciences*, Volume 17, pages 1210-1228.

VILLALTA (092F384)

(Fig. B1, No. 09)

By Shielagh N. Pfuetzenreuter

LOCATION:	Lat. 49°06′ Long. 124°28′ 92F/1W NANAIMO MINING DIVISION. North of the Nanaimo River, about 5 kilometres northwest of Fourth Lake.
CLAIMS:	VILLALTA, SPECOGNA COPPER, WO1, 2, 5, 6, 7, WOLFRAM 3, 4, FIDO, TANGL 1, SURPRISE, VILLALTA A, C, D, MIN.
ACCESS:	Access to the main part of the property is from Nanaimo along paved and gravel roads to the Crown Forest logging office at First Nanaimo Lake, and from there along well-maintained logging roads, about 60 kilometres.
OWNER/OPERATOR:	CANAMIN RESOURCES LIMITED.
COMMODITIES:	Gold, silver.

EXPLORATION HISTORY

In 1976, Mr. E. Specogna first discovered gold mineralization on the Villalta A and D claims in a hematitic horizon overlying Buttle Lake limestone and Sicker Group volcanics and sediments. Subsequent drilling intersected the hematitic zone returning values of 126 grams per tonne gold, 19.2 grams per tonne silver, 7.65 per cent zinc and 0.76 per cent copper over 30 centimetres, but failed to establish continuity of the mineralization. Irregular pods of massive sulphides were also found within the limestone. Asarco Exploration Company of Canada Ltd. optioned the property in 1982 and conducted a soil geochemistry survey. A large linear arsenic anomaly and spotty zones of anomalous gold, silver, copper and zinc were detected. Asarco later dropped the option without further work.

Another mineralized zone was discovered on the Specogna Copper claim consisting of disseminated and semimassive copper-silver sulphides in an apparent shear zone cutting Karmutsen volcanics. Topographic restrictions, however, limited follow-up work on the prospect. Falconbridge Limited optioned the property in 1983 and conducted geophysical and geochemical surveys, geological mapping and drilling. No new target areas were discovered and drilling failed to significantly extend the known mineralized areas.

CURRENT ACTIVITY

Between 1984 and 1986 preliminary metallurgical testing was carried out and in 1987 Canamin Resources Limited conducted a drilling program on the Villalta A and D claims in order to outline the size, shape and grade of gold mineralization contained in the southern exposed end of the hematite horizons, and to investigate the trace of the hematite zone beneath the Nanaimo Group sediments to the north. The results of the program showed the main hematitic zone in the south of the claim to be dipping steeply north-northeasterly with grades of 9.4 grams per tonne gold and 22.3 grams per tonne silver over 4.9 metres. This includes a 1.0-metre core of 36.2 grams per tonne gold and 74.1 grams per tonne silver. Drilling to the north intersected 10.7 metres of 2.06 grams per tonne gold and 9.9 grams per tonne silver, including 1.0 metre of 8.5 grams per tonne gold and 22.3 grams per tonne silver.

Canamin presently proposes to develop the property with a mining program which will consist of a small open pit and leach pad.

REGIONAL GEOLOGY

The Villalta property is located on the Cowichan - Horne Lake uplift of the Paleozoic Sicker Group. This consists of a subaqueous sequence of volcanic and sedimentary rocks unconformably overlain or in fault contact with the Buttle Lake Group which consists of the Cameron River sediments and the Buttle Lake limestone. This is in turn overlain by the Vancouver (Triassic) and Bonanza (Jurassic) groups. These rocks are intruded by the middle Jurassic Island plutonic suite and are unconformably overlain by Cretaceous sedimentary rocks of the Nanaimo Group.

PROPERTY GEOLOGY

The main zone of mineralization in the south of the property occurs near a small exposure of Buttle Lake limestone close to a contact with Sicker Group rocks.

The limestone is crinoidal and marked by numerous sink holes. It contains 30-centimetre interbeds of andesite and tuffaceous horizons which suggest an interfingering relationship of reef facies limestone and volcanic units.

Much of the property is underlain by multilithic agglomerate and lapilli tuffs composed of subangular fragments of dark grey basalt, cherty tuff, chert, crystal lithic tuff, laminated tuff and other lithologies. Fragments range in size from 0.4 to 20 centimetres. These units are usually interbedded with massive tuffs, banded tuffs, cherts and argillites. They are largely unmineralized with less than 1 per cent disseminated pyrite in the massive tuffs.

Basalts of the Karmutsen Formation (Vancouver Group) crop out as massive flows and also locally as pillowed or brecciated flows. The massive flows contain plagioclase phenocrysts in a black, fine-grained matrix of plagioclase and mafic microlites. Quartz, epidote and calcite veining are common. Karmutsen basalts are devoid of sulphide mineralization except for rare patches of chalcopyrite and malachite.

Island Intrusions cut the Karmutsen volcanics but are nowhere in contact with the older Sicker Group rocks. The unit consists mainly of medium to coarse-grained quartz monzonite with 65 per cent feldspar, 20 per cent laths and irregular patches of hornblende altered to biotite and chlorite, 15 per cent fine interstitial quartz and a trace of sphene. There are abundant quartz-epidote veinlets cutting the unit and some mineralization occurs on the southeastern part of the property on the Sunrise claim (Figure B-9-1). Nanaimo Group clastic sediments and Tertiary intrusions are also exposed on the property.

The Nanaimo Group overlies both the Buttle Lake Group and the Sicker Group. It consists of a lower section of matrix-supported conglomerate and an upper section of black argillite. The upper section contains some finely disseminated pyrite. The Tertiary intrusions, the youngest rocks on the property, contain no sulphides.

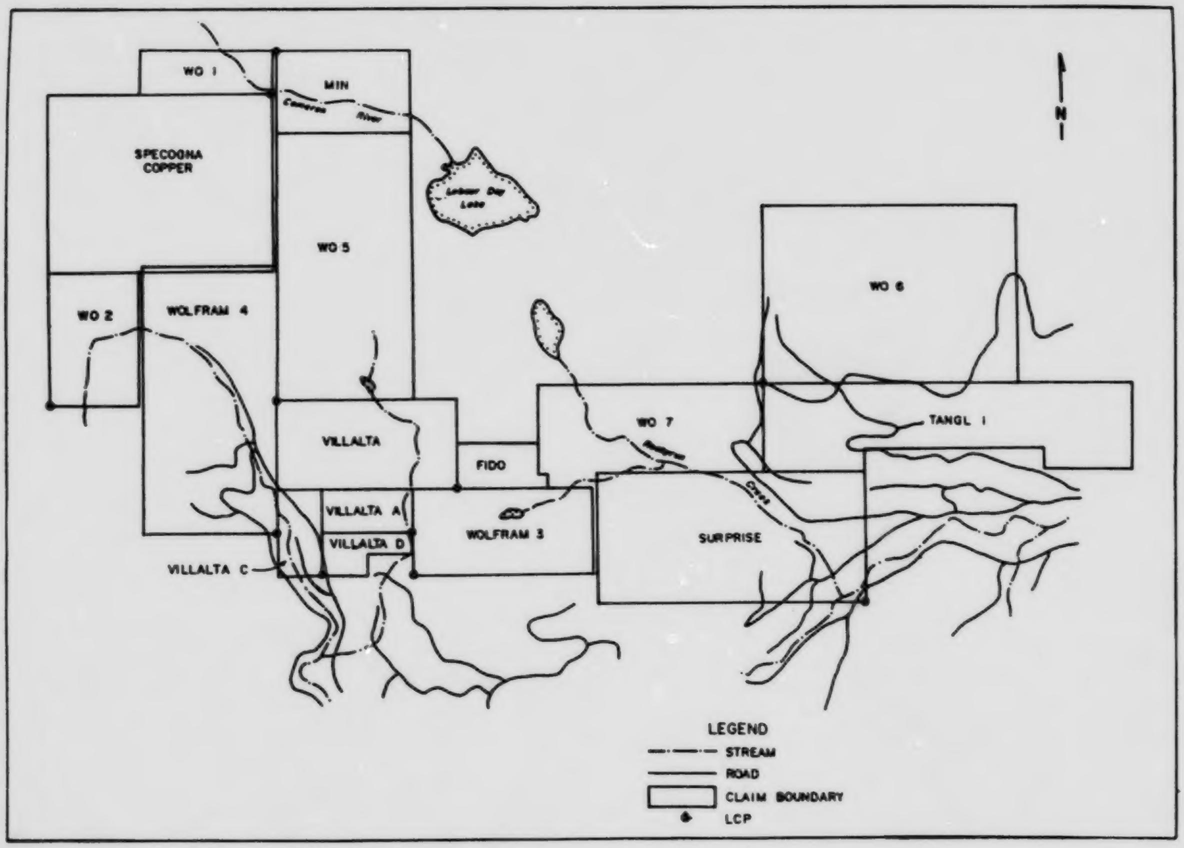

Figure B-9-1. Villalta claim group (modified from Lisle and Quin, 1987).

MINERALIZATION

The most important mineralization is the hematite "iron formation" occuring above the limestone and close to an unconformity with the overlying Nanaimo sediments on the Villalta A and D claims (Figure B-9-1). The hematite layer is stratabound and powdery to massive with drill-indicated dimensions of approximately 110 by 30 by 14 metres dipping steeply north-northeast. It varies from black specular to earthy red and appears pitted, weathered and limonitic on surface. The gold appears evenly distributed at times, but sometimes appears to be of better grade near the base.

North of the iron formation in altered limestone are steeply dipping discontinuous veins and crudely banded conformable lenses of massive fine to coarse-grained pyrite with pyrrhotite. Lesser sphalerite, magnetite, chalcopyrite and galena are evident. These occurences locally carry anomalous gold, silver, copper, zinc and tungsten, but have not attracted detailed exploration. Shear zones in the Island Intrusions on the Sunrise claims contain lenses of quartz, pyrite, sparse malachite and rare bornite, however, they are not considered a significant target.

Published reserves for the Villalta property stand at 36 100 tonnes of proven and probable ore with grades of 3.4 grams per tonne gold and 16.1 grams per tonne silver.

WORK DONE

1987: 47 diamond-drill holes, 1042 metres.

1988: A feasibility study was conducted for a small open-pit mine and leach pad.

REFERENCES

Lisle, T.E. and Quin, S.P. (1987): Assessment Report on the Villalta Property, Canamin Resources Limited, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 15939.

Chandler, T.E. (1985): Geological, Geochemical and Drilling Assessment Report on Waterfall and Tangl Group Claims, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 13236.

MOSS-MAT STREAM SEDIMENT SAMPLING IN THE ALBERNI - NANAIMO LAKES AREA (92F/1W, 2E and part of 7E)

(Fig. B1, No. 10)

By N.W.D. Massey and S.J. Day

INTRODUCTION

Moss-mat stream sediment sampling has been shown to be an efficient means of acquiring regional stream sediment geochemical data (Matysek and Day, 1988; Matysek *et al.*, 1989a, b). Elements such as gold, which are concentrated in heavy minerals, are enhanced in the moss-mat sample compared to conventional stream-sediment samples from the same location, while hydromorphically dispersed elements such as copper and zinc yield similar results to the conventional sample. This results in the more efficient definition of trends for elements like gold while reproducing results for other elements. Moss-mat sampling is being used as an integral part of the Regional Geochemical Survey of Vancouver Island.

Seventy-four moss-mat samples were collected by mapping crews in the Port Alberni - Nanaimo Lakes area, during 1:50 000-scale regional geological mapping as part of the Sicker Project (Massey and Friday, 1989). These samples represent 67 sample stations with duplicate samples from seven stations. This data set (previously reported by Massey *et al.*, 1989) provides a foretaste of the larger RGS sampling planned for southern Vancouver Island in 1989 (with a prospective release during the summer of 1990) and allows some comments to be made concerning the resource assessment of the Alberni - Nanaimo Lakes area.

GEOLOGY AND MINERALIZATION

The Alberni - Nanaimo Lakes area is situated at the northwestern end of the Cowichan uplift, a major geanticline cored by volcanic and sedimentary rocks of the Paleozoic Sicker Group (Figure B-10-1). These are intruded by diabase and gabbro coeval with the overlying basaltic volcanics of the Late Triassic Karmutsen Formation. Micritic limestone of the Quatsino Formation and intermediate to felsic volcanic rocks of the Bonanza Group overlie the Karmutsen Formation, though they are volumetrically insignificant within the study area. All these sequences have been subsequently intruded by granodiorite stocks and plutons of the Middle Jurassic Island Intrusions. Late Cretaceous sediments of the Nanaimo Group lie unconformably on the older sequences and are the principal host to Late(?) Eocene porphyry sills. The lithostratigraphy of the area is described in more detail by Massey and Friday (1989) and Massey *et al.* (1989).

The area has undergone a complex tectonic history involving at least five major deformational events. The present regional map pattern is dominated by the effects of a middle Jurassic regional warping, which produced the geanticlinal uplift, and a Tertiary compressional faulting event. The latter gave rise to a system of northwest-trending, high-angle, listric reverse faults, for example the Cowichan River fault, that cut the map area into several slices. North-trending vertical faults, such as the Mineral Creek fault, offset the reverse faults.

Exploration and mining in the Alberni - Nanaimo Lakes area started as early as 1862 with small-scale placer-gold workings on China Creek. Exploration has proceeded since then in a somewhat cyclical fashion, focusing on gold and base metal deposits. Six different types of metallic mineral deposit are found in the area (Figure B-10-1):

(I) Volcanogenic, polymetallic massive sulphides and exhalative oxides, for example, Regina, "900 Zone" of the Debbie.

(II) Gold-bearing pyrite-chalcopyrite-quartz-carbonate veins along shears and faults, for example Black Panther, Victoria, Thistle.

(III) Copper-molybdenum quartz veins and stockworks, for example, WWW.

(IV) Other base metal quartz veins, for example, Rush and MOR.

(V) Iron-copper skarns, for example, Kitchener.

(VI) Epigenetic quartz-arsenic(-antimony) veins, for example, Grizzly.

MOSS-MAT SAMPLING

The sampling program consisted of collection of samples along Franklin River, which drains the Thistle mine area, as a test of moss-mat sampling in the region; and regional collection of moss-mat samples from 67 streams with drainage areas of 5 to 15 square kilometres.

Moss-mat samples were collected from boulders and logs within the active channel of streams; duplicate samples were collected at 10 per cent of all stations. The moss-mat samples were placed in kraft paper bags and air-dried for two to three days. Organic material

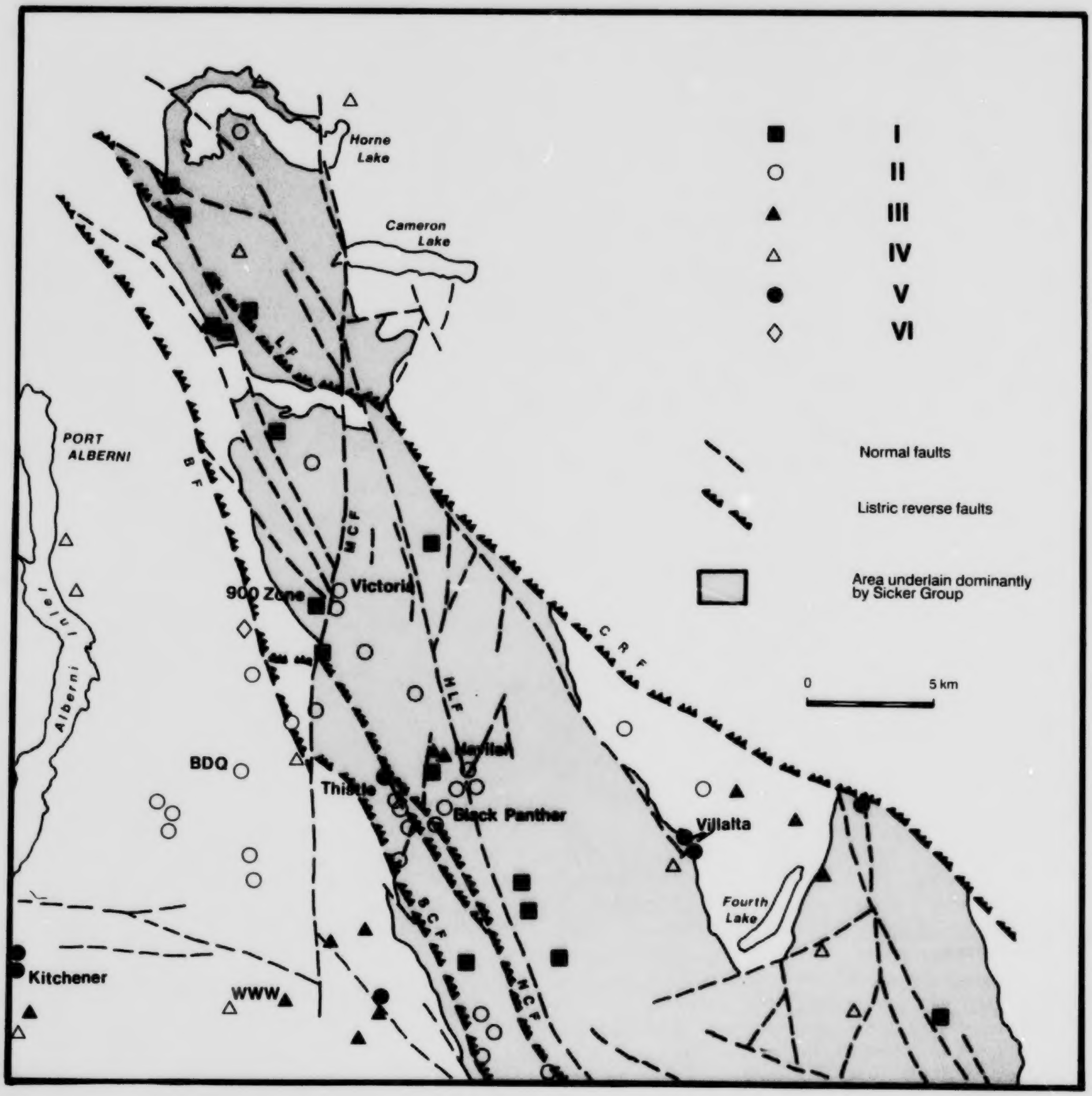
■ I
○ II
▲ III
△ IV
● V
◇ VI
Normal faults
Listric reverse faults
Area underlain dominantly by Sicker Group
0
5 km
Horne Lake
Cameron Lake
L F
PORT ALBERNI
B F
M C F
900 Zone
Victoria
Alberni Inlet
C R F
H L F
Merlin
Thistle
Black Panther
BDQ
Villalta
Fourth Lake
S C F
N C F
Kitchener
WWW

Figure B-10-1. Mineralization in the Alberni - Nanaimo Lakes area. I Volcanogenic polymetallic massive sulphides and exhalative oxides; II Gold-bearing quartz-carbonate veins along shears; III Copper-molybdenum veins and stockworks; IV Other base metal veins; V Iron-copper skarns; VI Epigenetic quartz-arsenic(-antimony) veins. BF Beaufort fault; CRF Cameron River fault; HLF Henry Lake fault; LF Lacy fault; MCF Mineral Creek fault; NCF North Cowichan fault; SCF South Cowichan fault.

TABLE B-10-1. ANALYTICAL RESULTS

Sample Number	UTM Northing	UTM Easting	Cu ppm	Pb ppm	Zn ppm	Ag ppm	Ni ppm	Co ppm	V ppm	Cr ppm	Au ppb	Hg ppb	As ppm	Sb ppm	Se ppm
A88-001-M-0	5443300	388450	110	24	108	0.1	49	27	119	54	15	50	18.7	1.3	2.1
A88-002-M-0	5443250	391500	107	24	108	0.1	58	31	137	68	6	60	13.5	0.9	1.0
A88-003-M-0	5451350	381390	67	13	61	0.1	44	22	125	66	4	50	4.5	1.1	0.5
A88-004-M-1	5452600	379650	86	17	68	1.1	61	29	108	123	156	80	50.6	1.6	2.0
A88-004-M-2	5452600	379650	93	17	70	0.1	63	29	111	131	27	70	44.6	1.6	1.1
A88-005-M-0	5438900	391550	81	24	84	0.1	37	26	86	44	16	50	62.6	1.0	0.6
A88-006-M-0	5439300	392150	72	14	99	0.1	46	21	101	48	63	30	7.4	0.4	0.6
A88-007-M-0	5437500	392900	206	38	157	0.3	25	27	103	27	48	70	20.1	1.4	1.8
A88-008-M-0	5437900	392700	114	19	117	0.2	49	28	92	41	92	80	26.9	0.7	1.1
A88-009-M-0	5436400	391700	62	20	86	0.1	22	22	201	32	4	70	12.5	0.8	0.9
A88-010-M-0	5437350	385100	119	16	115	7.5	30	29	154	48	196	190	19.9	0.5	0.9
A88-011-M-0	5441550	386200	76	18	82	0.3	35	24	115	68	1190	40	17.9	0.7	0.5
A88-012-M-1	5437350	387350	52	14	63	0.5	22	19	150	38	28	30	9.9	0.5	0.6
A88-012-M-2	5437350	387350	53	16	64	0.1	21	20	143	38	7	30	6.5	0.3	0.3
A88-013-M-0	5435050	387050	74	13	63	0.1	47	22	123	71	9	30	3.8	0.4	0.6
A88-014-M-0	5431200	387100	71	8	57	0.1	57	25	112	89	36	20	1.9	0.3	0.4
A88-015-M-0	5433550	388750	61	20	71	0.1	49	22	110	73	74	40	2.8	0.3	1.0
A88-016-M-0	5441100	396900	124	11	80	0.1	38	24	131	37	21	30	13.1	0.9	0.5
A88-017-M-0	5438300	398300	89	22	75	0.1	79	29	113	110	12	9100	10.0	1.3	0.8
A88-018-M-0	5438150	398150	129	11	64	0.1	41	31	120	39	10	60	8.4	1.0	0.3
A88-019-M-0	5438900	395950	75	17	71	0.1	25	17	95	31	2	70	6.6	0.5	0.3
A88-020-M-0	5445350	381750	64	16	92	0.4	115	30	104	192	52	40	25.2	1.0	0.5
A88-021-M-0	5445000	382650	248	39	155	0.4	38	28	146	62	111	60	80.5	1.1	0.8
A88-022-M-0	5445200	382450	77	17	59	0.1	27	22	111	31	26	50	6.5	0.7	0.6
A88-023-M-1	5446400	378750	83	17	90	1.2	71	29	83	116	2330	480	362.6	4.7	0.7
A88-023-M-2	5446400	378750	88	27	89	0.8	71	31	84	120	3830	800	365.3	4.5	0.6
A88-024-M-0	5455850	379850	92	17	79	0.1	39	24	103	38	19	310	21.6	2.6	0.2
A88-025-M-0	5457000	379350	54	11	87	0.2	29	14	78	27	2	100	12.5	1.1	1.2
A88-026-M-0	5460450	382350	140	11	88	0.1	46	28	155	53	5	280	10.0	2.3	0.7
A88-027-M-0	5460500	385400	111	19	71	0.1	30	23	175	44	34	220	7.4	1.5	0.3
A88-028-M-0	5465850	370300	94	11	59	0.1	360	20	142	42	15	90	6.8	1.4	0.3
A88-029-M-0	5429200	382700	134	18	89	0.1	43	26	109	67	24	70	8.1	0.7	0.8
A88-030-M-0	5464500	375000	42	13	63	0.1	25	16	71	41	1	210	3.4	1.4	0.9
A88-031-M-1	5465500	375100	27	2	42	0.1	14	12	178	39	440	30	2.2	0.9	0.2
A88-031-M-2	5465500	375100	31	10	48	0.1	15	12	155	35	360	60	2.4	0.9	0.3
A88-032-M-0	5464550	378750	59	13	69	0.1	20	19	138	44	2	70	6.9	1.0	0.5
A88-033-M-0	5457750	373430	38	20	71	0.1	30	15	96	35	7	80	6.6	0.8	0.5
A88-034-M-0	5461700	372350	51	14	66	0.1	23	15	129	33	3	90	11.9	1.8	0.6
A88-035-M-0	5430300	373300	118	13	90	0.2	35	24	147	44	2	80	4.0	0.5	0.3
A88-036-M-0	5451050	374200	61	8	65	0.1	27	18	80	43	590	200	12.5	1.6	0.4
A88-100-M-0	5447000	387100	81	13	91	0.1	47	23	118	71	2	70	11.8	1.0	0.8
A88-101-M-0	5445350	387150	84	7	86	0.1	45	24	113	89	38	110	10.1	0.6	0.3
A88-102-M-0	5449100	384550	94	17	87	0.2	45	27	106	61	179	280	12.7	2.1	0.5
A88-103-M-0	5436990	381400	94	52	92	0.7	58	28	100	89	1360	80	99.1	1.1	0.6
A88-104-M-0	5434600	381850	357	52	160	0.8	70	31	130	73	480	60	204.2	1.3	1.0
A88-105-M-0	5437050	378000	132	12	96	0.1	56	28	178	75	74	80	5.3	0.3	0.2
A88-106-M-0	5437550	378000	176	21	129	0.1	101	34	154	122	24	60	9.5	0.4	0.4
A88-107-M-0	5441150	374600	86	11	68	0.1	39	25	118	62	46	70	18.5	1.0	0.5
A88-108-M-0	5441550	372950	36	9	44	0.1	13	13	90	22	2	60	3.0	0.2	0.2
A88-109-M-0	5430600	378350	335	8	107	0.4	32	22	102	36	50	40	7.8	0.2	0.3
A88-110-M-1	5432650	377900	89	17	105	0.1	40	23	114	59	42	50	8.5	0.6	0.8
A88-110-M-2	5432650	377900	79	13	99	0.2	36	23	111	58	101	60	8.2	0.4	1.0
A88-111-M-0	5435050	374400	82	7	63	0.1	33	24	128	62	115	50	6.5	0.5	0.2
A88-112-M-0	5441120	378700	101	17	78	0.1	34	22	104	47	70	80	19.6	0.9	0.8
A88-113-M-0	5442800	377000	180	17	85	0.1	49	29	140	69	118	170	24.6	2.4	0.7
A88-114-M-0	5430250	399950	95	12	66	0.1	44	23	104	80	20	70	4.7	0.3	0.5
A88-115-M-0	5432400	399850	69	24	76	0.1	25	26	106	31	8	80	6.6	0.6	0.5
A88-116-M-0	5437050	399700	61	17	63	0.1	25	23	112	32	2	60	8.9	0.7	0.3
A88-117-M-0	5434200	399050	60	8	59	0.1	25	17	101	45	2	80	3.7	0.1	0.4
A88-118-M-0	5437250	401100	57	17	110	0.1	20	22	114	26	1	60	7.9	1.3	0.4
A88-119-M-0	5428000	406400	51	16	54	0.1	17	16	90	33	2	70	1.8	0.3	0.3
A88-120-M-0	5428250	406500	60	8	69	0.1	23	17	75	32	1	110	6.3	0.3	0.9
A88-121-M-1	5433300	394950	60	12	58	0.1	24	17	119	39	25	60	4.9	0.5	0.2
A88-121-M-2	5433300	394950	58	8	53	0.1	25	18	123	41	350	100	4.3	0.6	0.2
A88-122-M-0	5432300	392300	72	7	44	0.1	46	17	83	50	28	60	1.6	0.2	0.2
A88-123-M-0	5433100	395000	48	6	53	0.1	36	19	100	58	2	70	2.7	0.2	0.2
A88-124-M-0	5429700	366720	102	16	90	0.1	65	25	154	72	26	90	14.0	0.6	1.0
A88-125-M-0	5438500	369550	34	14	53	0.2	16	15	87	19	7	70	6.2	0.4	0.2
A88-126-M-0	5433750	371410	40	12	51	0.1	16	13	71	22	10	60	2.3	0.2	0.2
A88-127-M-0	5436620	373050	54	11	62	0.1	29	20	133	43	26	70	4.7	0.5	0.2
A88-128-M-0	5445600	370500	59	10	42	0.1	22	14	135	35	37	100	5.6	0.4	0.2
A88-129-M-0	5446450	370850	45	11	56	0.1	30	18	109	51	48	120	10.1	0.8	0.2
A88-130-M-1	5446250	370900	22	5	47	0.1	11	15	260	35	17	50	5.0	0.8	0.2
A88-130-M-2	5446250	370900	22	2	48	0.1	14	14	274	38	1	60	4.6	0.8	0.2

was separated from the dried samples and discarded. The remaining mineral sediment was sieved to -80 mesh.

Analysis for 37 elements was performed by Acme Analytical Laboratories, Vancouver. A 0.5-gram portion of the -80-mesh sediment was digested with aqua regia and 30 elements were determined by inductively coupled plasma emission spectroscopy (ICP-ES). Low detection limits for arsenic, antimony, bismuth, tellurium, sellenium and germanium were determined by reduction to their hydrides with ICP-ES finish. Mercury was determined by cold-vapour atomic absorption. Gold was determined by graphite-furnace atomic absorption following digestion of a 10-gram split with aqua regia and extraction with methyl isobutyl ketone (MIBK) on an acid leach extract. These digestions do not breakdown highly resistant silicates and oxides. Results for elements considered in this study are tabulated and included in Open File 1989-6 and as Table B-10-1.

INTERPRETATION

ORIENTATION STUDY (FRANKLIN RIVER)

Anomalous concentrations of copper and gold were encountered downstream from the Thistle copper-gold mine (Figure B-10-2). Copper concentrations in both moss-mat sediments and conventional stream sediments decrease to local background concentrations (roughly 80 ppm determined from three samples collected in unmineralized areas) within 1 kilometre from the mine. The same effect is observed 3 kilometres below the mine where a second source decays to background levels in the same distance.

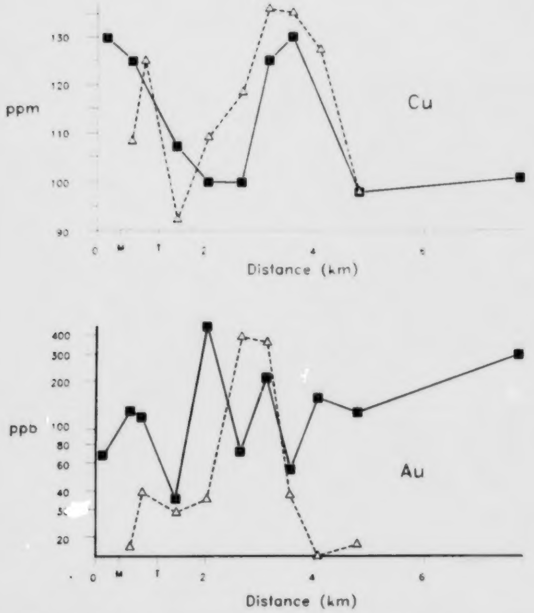

Figure B-10-2. Dispersion patterns for Cu and Au in moss-mat (filled circles) and stream sediments (open circles) in Franklin River downstream of the Thistle Cu-Au mine. M position of mine site; T position of major tributary draining Father and Son Lake.

Gold concentrations are typically greater in moss-mat sediments than stream sediments. This effect is especially apparent 4 kilometres from the mine where moss-mat sediments indicate the presence of gold mineralization whereas stream sediments return values near the detection limit. Results indicate the suitability of moss-mat sediments for regional reconnaissance surveys for gold at the density used in the regional survey.

REGIONAL STUDY

The dominant lithostratigraphic units within the drainage basin were recorded for each sample location to investigate the variation of background and threshold levels with lithostratigraphy. Two subsets of the data were considered; one for the Sicker Group (41 samples) and a second for the Karmutsen Formation volcanics and intrusives (29 samples) with some minor overlap between the two subsets. The small number of samples involved precluded meaningful comparison of Island Intrusion, Nanaimo Group and Tertiary intrusion subsets. However, given the sample sizes of the subsets, little or no significant difference (significance level $\alpha = 0.05$) could be found between the two subsets based on statistical measures such as mean, median, range, 75th percentile and probability plots. Neither did the two subsets differ significantly from the total dataset. In consequence, the dataset was treated as a whole for the further definition of anomalous samples.

In order to determine suitable values for the background and anomaly threshold, data for each element were plotted on probability plots and model curves fitted using an interactive computer program (Probplot; Stanley, 1988). A logarithmic transform was used for all elements with the exception of gold for which a square-root transform (approximating a Poisson distribution; Hoyle, 1973) was utilized. Transformation of data is needed to approximate the Gaussian normal distribution which plots as a straight line on probability graphs. Several elements showed clearcut breaks in the slope of the probability plot at the high-value end, enabling the anomalous values to be easily separated from the background population and a suitable threshold value to be defined. These anomalous samples are discussed below.

Of particular interest, it was noted that nearly all elements showed signs of a break in slope at low values indicating the presence of a small number of anomalously low samples compared to the background population. However, samples anomalously low for one element are not necessarily low for another element. This effect may be attributed to sensitivity problems near the detection limit for some elements.

BASE-METAL (CU-ZN-PB): RESULTS

Probability plots for the base metals appear to be unimodal, reflecting only background values (Figures B-10-3 to 5). The range of values found is typical of that expected in volcanic rocks which dominate the Alberni - Nanaimo Lakes area. No anomalously high-value samples appear to be present such as would result from contamination of stream sediments from sulphide mineralization. This is a little surprising considering the importance of the Sicker Group as a host for polymetallic massive sulphide deposits. The lack of anomalous samples may reflect either:

(a) the low potential for significant massive sulphide mineralization in the area. The Maclaughlin Ridge Formation of the Sicker Group, host to the Kuroko-style Lara and Mount Sicker deposits, is represented in the Alberni area by more distal facies bedded tuffites and volcaniclastic sediments that are unmineralized. However, exhalative oxide-facies cherts occur at the contact between the Duck Lake and Nitinat formations stratigraphically lower in the Sicker Group. Sulphides have also been reported at this stratigraphic level, for example the Regina property; or

(b) rapid decay of anomalies as indicated by the orientation study, in which case sampling at this density is not adequate to detect small isolated occurrences; or

(c) failure to adequately define the background values. The orientation survey results from unmineralized stream sediments have copper values less than 80 ppm. However, many samples yielded higher copper values, perhaps suggesting that the region as a whole may be anomalous and not enough background samples have been collected in this somewhat limited regional

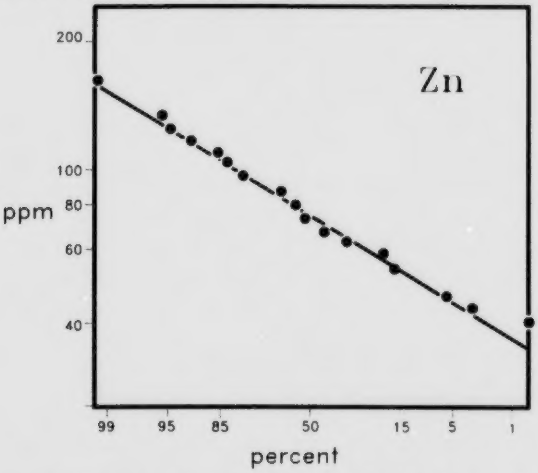

Figure B-10-3. Logarithmic probability plot for zinc from all moss-mat stream sediment samples. Duplicates are averaged before being included in the plot. Line is model population derived from the Probplot program (Stanley, 1988).

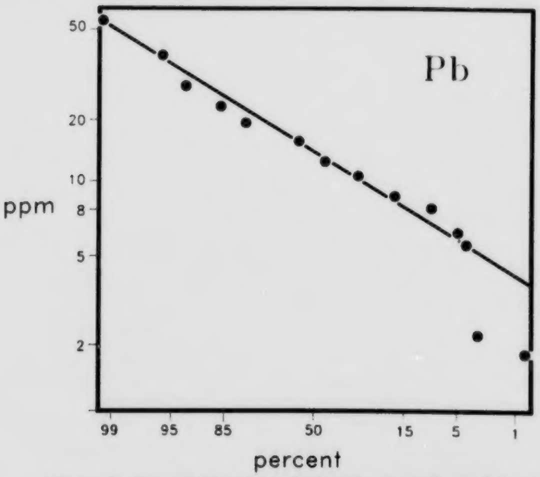

Figure B-10-4. Logarithmic probability plot for lead from all moss-mat stream sediment samples. Duplicates are averaged before being included in the plot. Line is model population derived from the Probplot program (Stanley, 1988).

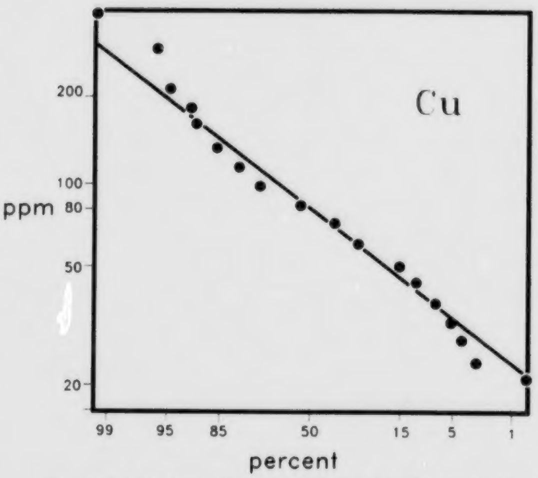

Figure B-10-5. Logarithmic probability plot for copper from all moss-mat stream sediment samples. Duplicates are averaged before being included in the plot. Line is model population derived from the Probplot program (Stanley, 1988).

sampling to allow definition of the threshold value. The forthcoming RGS sampling will provide a good test of this possibility.

Two samples could be interpreted as being anomalously high in copper (*see* Figure B-10-5). However, both of these are from streams in the south of the area, draining areas with significant amounts of Island Intrusion granodiorite within the basin and may reflect copper-molybdenum mineralization.

PRECIOUS METALS AND PATHFINDER ELEMENTS: RESULTS

Samples show a wide range in values for gold, from 1 to 3830 ppb, with many values being quite high, reflecting the known potential of the area for gold deposits. Duplicate samples show good reproducability at low and high levels suggesting that gold present in the sediment is very fine. Well-defined bimodal populations are apparent in probability plots for gold, and also for mercury and arsenic (Figures B-10-5, 6 and 7) and threshold values can easily be established for these elements. However, most samples have silver values at or below detection limit (0.1 ppm) precluding the use of the probability plot. A threshold value of 0.3 ppm was arbitrarily chosen to separate the anomalously high values from the background of subdetection values. This is comparable at the percentile level (84th percentile) to the better defined thresholds for arsenic (88th percentile), mercury (85th percentile) and gold (77th percentile). A good threshold could not be defined for antimony but, in general, samples with elevated antimony values were also high in one or more of gold, mercury or arsenic.

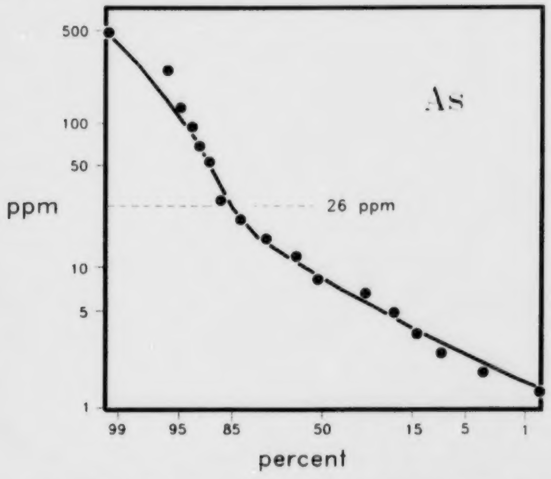

Figure B-10-6. Logarithmic probability plot for arsenic. Model curve fitted interactively using Probplot (Stanley, 1988), indicating threshold value of 26 ppm.

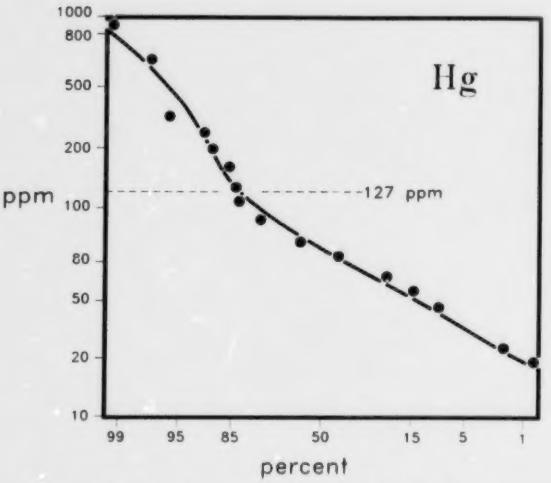

Figure B-10-7. Logarithmic probability plot for mercury. Model curve fitted interactively using Probplot (Stanley, 1988), indicating threshold value of 127 ppb.

The sample locations anomalous in these four elements are shown overlain on simplified geology in Figure B-10-8. Three significant points can be made. Firstly, several of the anomalies are multi-element, often involving three of the four elements. Secondly, the anomalous stations occur on streams running along or draining basins cut by Tertiary faults such as the Mineral Creek and Cowichan faults. Thirdly, the element assemblage suggests epithermal to mesothermal gold veins as sources. Quartz-ankerite-gold veins and alteration are common along the Tertiary and older faults, and lithogeochemical samples from such alteration zones are often anomalous in gold.

OTHER ELEMENTS

Several elements (U, Th, Cd, Mo, W) were found to be at or near detection limit in all samples. Nickel and chromium show unimodal background distributions on probability plots, similar to the base metals. Vanadium, however, shows anomalous values above the 95th percentile (187 ppm). The samples concerned are not spatially related to any mineralization and may reflect Karmutsen Formation rocks in the drainage basin.

SUMMARY AND CONCLUSIONS

Moss-mat stream sediment sampling in the Alberni - Nanaimo Lakes area provides another example of the efficacy of the method to easily and efficiently collect regional geochemical data for a large suite of elements useful to the explorationist. The data support the

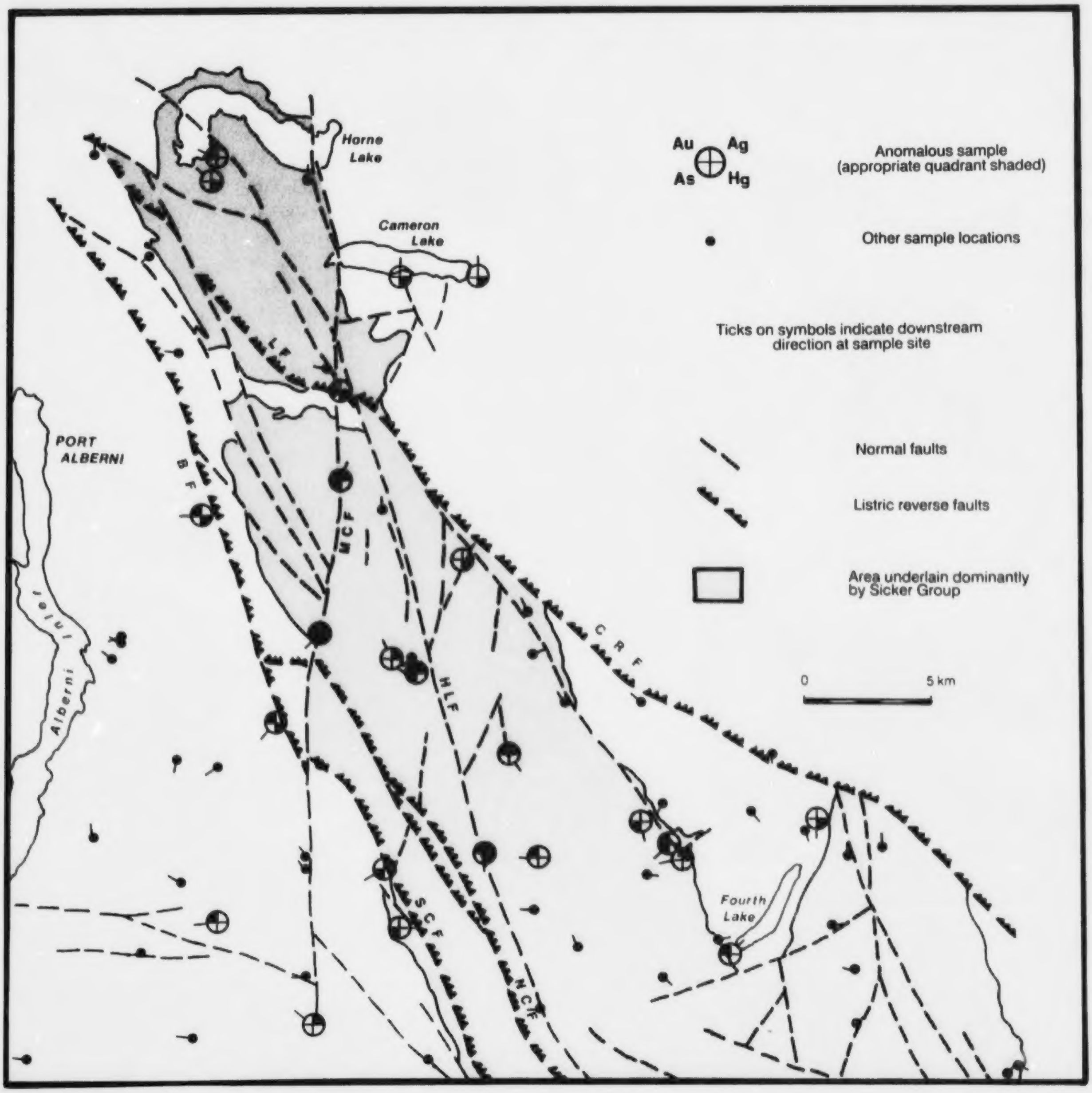
Horne Lake
Cameron Lake
PORT ALBERNI
Alberni Inlet
Fourth Lake
LF
BF
MCF
HLF
CRF
SCF
NCF
Au Ag As Hg
Anomalous sample (appropriate quadrant shaded)
Other sample locations
Ticks on symbols indicate downstream direction at sample site
Normal faults
Listric reverse faults
Area underlain dominantly by Sicker Group
0
5 km

Figure B-10-8. Distribution of moss-mat stream sediment sample sites anomalous in gold, silver, arsenic or mercury within the Alberni - Nanaimo Lakes area.

targeting of the study area as prospective for gold, suggesting that exploration efforts be directed towards the epithermal-mesothermal quartz-ankerite alteration found along fault zones. Surprisingly, no signature of potential massive sulphide mineralization is apparent in this dataset, suggesting that the potential for such deposits is low or that the sampling density was too low. Resampling during the 1989 Regional Geochemical Survey will test these conclusions.

ACKNOWLEDGMENTS

The authors would like to acknowledge the able and enthusiastic assistance of Steve Friday, Janet Riddell, Sandra Dumais and Wayne Jackaman during sample collection; Janet Riddell also assisted in the interpretation of results. This project is a contribution to the Canada/British Columbia Mineral Development Agreement.

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BEAR GROUP (092F044, 45, 46)

By Shielagh N. Pfuetzenreuter

(Fig. B1, No. 11)

LOCATION:	Lat. 49°07′	Long. 125°23′	92F/3W
	ALBERNI MINING DIVISION. 55 kilometres southwest of Port Alberni, on west side of Kennedy River.		
CLAIMS:	CINNAMON BEAR, GRIZZLY BEAR, BLACK BEAR, IRONSIDES, TITANIC, CAPTAIN HOOK, BLASTER.		
ACCESS:	Access is via Highway 4 from Port Alberni, then along a series of well-maintained logging roads.		
OWNER/OPERATOR:	INTERNATIONAL COAST MINERALS CORPORATION.		
COMMODITIES:	Gold, silver, copper.		

INTRODUCTION

Mineral exploration in the Kennedy Lake area dates back to the 19th century. The Bear group was staked by Mr. A. Spittall and company in 1902. Little is documented until International Coast Minerals Corporation acquired the property in 1980. Geological mapping, soil geochemistry, ground geophysical surveys, trenching, sampling and diamond drilling has since been completed.

GEOLOGY

The area is rugged with elevations ranging from 20 to 600 metres above sea level. The claims are underlain by Karmutsen volcanics and Quatsino limestone of the Triassic Vancouver Group which are intruded by Jurassic granodiorite to quartz diorite. The volcanics consist of andesitic to basaltic flows, tuffs and volcaniclastics. West-northwest-trending shear zones of Tertiary age (Mine Creek and Canoe Creek faults) cut these rocks. Lode gold mineralization occurs in a series of steeply dipping quartz veins occupying splay faults, sheeted zones and shears.

MINERALIZATION

Mineralization consists of Tertiary mesothermal quartz veins and stockworks containing pyrite, pyrrhotite, chalcopyrite and sphalerite with minor galena, arsenopyrite and traces of native gold. Although skarn alteration of the Vancouver Group rocks is widespread due to Jurassic intrusions, alteration related to the Tertiary veins is limited to very minor carbonatization and chloritization. The main mineralized veins, Shack, Bear and Black, occur in splay faults related to the regional Mine Creek fault. The Elite vein occurs within the Canoe Creek fault which is located approximately two kilometres north of the Mine Creek fault. These major veins are generally less than one metre in width but locally are up to 2.7 metres wide in sygmoidal flexures. Gold assays, across full vein width, from trench sampling and drill intersections have values up to 85.7 grams per tonne across 2.7 metres in a sulphide-rich part of the Black vein. More typically, twenty-one channel samples across the Shack vein, spaced over 50 metres strike length, averaged 23.7 grams per tonne gold and 65.5 grams per tonne silver over an average width of 37 centimetres.

WORK DONE

A program of trenching, sampling and diamond drilling was ongoing through 1988 and included work on the Shack, Bear, Black and Elite vein systems.

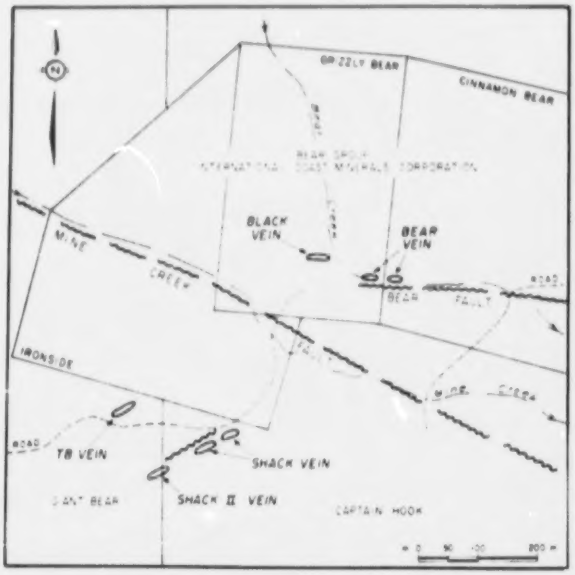


Figure B-11-1. Claim and Showing Location Map, Bear Group.

NOTES

LANG BAY (92F137)

(Fig. B1, No. 12)

By Z.D. Hora

LOCATION:	Lat. 49°48′	Long. 124°14.5′	92F/16W
	VANCOUVER MINING DIVISION.		
CLAIMS:	TRISH 1-2; KELLY 1-5, ZOIE 1; Ryan 1-3.		
ACCESS:	Approximately 15 kilometres southeast of Powell River, along Highway 101 turning west on Zielinski Road.		
OWNER:	Fargo Resources Limited.		
OPERATOR:	BRENDA MINES LIMITED and FARGO RESOURCES LIMITED.		
COMMODITY:	Kaolin.		

INTRODUCTION

The Lang Creek kaolin deposit was discovered in 1986 during exploration drilling for germanium-bearing beds in a small (about 25 square kilometres) sedimentary basin of Late Cretaceous (Campanian) age. Exploration drilling and laboratory studies followed the discovery and confirmed the presence of a medium-sized deposit of residual kaolin in Coast intrusions underlying the sedimentary rocks. The economic potential of this deposit will be established by further laboratory, marketing and feasibility studies.

EXPLORATION HISTORY

Five drilling programs have been completed since the kaolin deposit was discovered. Thirty-one dry-reverse circulation drill holes were completed in 1987, initially with assistance from a FAME grant and later under an option agreement with Brenda Mines Limited. Two programs totalling 50 holes, mostly HQ-core holes, followed in February and December of 1988. A further 12 diamond-drill holes were completed in January 1989. The company has also completed seismic, magnetic and resistivity surveys to outline the depth and size of the basin, with mixed success.

LABORATORY STUDIES

An initial study of the mineralogy, processing possibilities and the properties of recovered kaolin was undertaken by the Department of Metals and Materials Engineering at The University of British Columbia, by S. Mak, under the supervision of Professor A.C.D. Chaklader and funded by a grant from the National Research Council. The results established a decrease in kaolin content with increasing depth; the presence of coarse-grained kaolin crystals (up to 9.3 microns) with a brightness of 74.5 to 77.2 per cent in the upper-most part of the deposit; and a fine-grained (less than 1 micron) kaolin with a brightness of 62.9 per cent at greater depth. Bleaching tests indicate that the brightness of kaolin from the deeper parts of the deposit can be significantly improved.

Further beneficiation studies were conducted in commercial laboratories in Cornwall, England and at Indiana University in the U.S.A. Work to date has confirmed that it is feasible to improve the brightness of the Lang Bay kaolin to meet paper-filler specifications.

GEOLOGY - REGIONAL SETTING

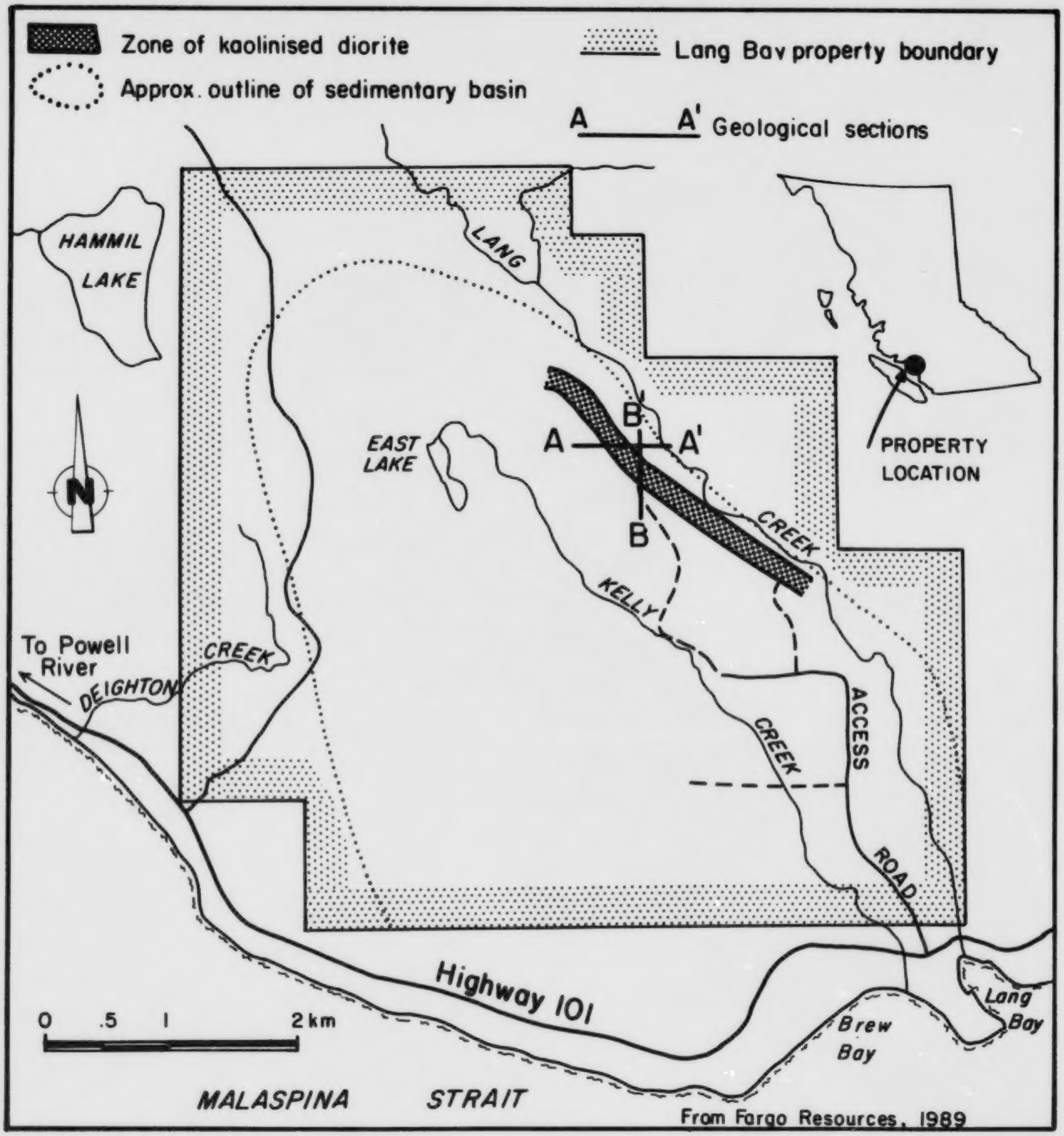
The Lang Creek kaolin deposit occurs within a granodiorite-diorite pluton below a small outlier of sedimentary rocks on the western edge of the Coast plutonic complex. Sedimentary rocks consist of irregular layers of kaolin claystones, mudstones, siltstones, sandstones and conglomerates with minor detrital coal and coal lenses. Recent palynological analyses of carbonaceous siltstone and claystone samples correlate the Lang Bay sediments with the Burrard Formation of the Lower Mainland and Extension-Protection Formation of Vancouver Island. The age of these rocks is Early to Middle Campanian. The basement plutonic complex is Jurassic to Cretaceous in age.

The entire basin area is poorly exposed, being covered by a continuous mantle of glacial till; outcrops are confined to the banks of Lang Creek.

DEPOSIT GEOLOGY

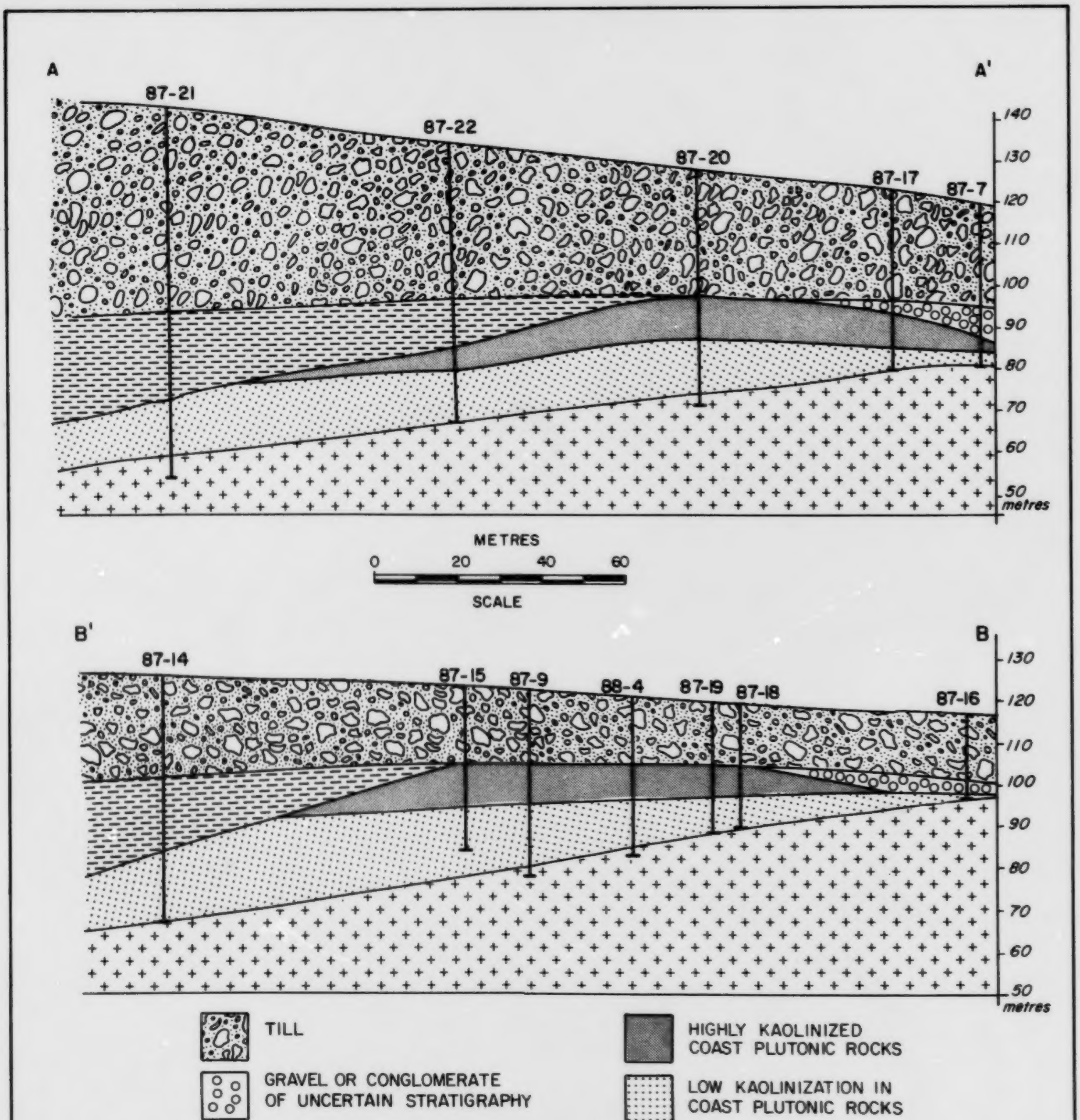
RESIDUAL KAOLIN

Drilling indicates that the primary kaolin is confined to the eastern margin of the sedimentary basin (Figure B-12-1). The kaolinized zone in the granitic basement is approximately 200 metres wide and extends northwesterly over a length of more than 2600 metres. The residual kaolin attains a thickness of up to 30



Zone of kaolinised diorite
Lang Bay property boundary
Approx. outline of sedimentary basin
A A' Geological sections
HAMMIL LAKE
LANG
EAST LAKE
A
A'
B'
B
CREEK
KELLY
PROPERTY LOCATION
N
To Powell River
DEIGHTON
CREEK
CREEK
ACCESS
ROAD
Highway 101
0 .5 1 2 km
Brew Bay
Lang Bay
MALASPINA STRAIT
From Fargo Resources, 1989

Figure B-12-1. Lang Bay area showing location of the residual kaolin deposit.


A
A'
87-21
87-22
87-20
87-17
87-7
140
130
120
110
100
90
80
70
60
50
metres
METRES
0
20
40
60
SCALE
B'
B
87-14
87-15
87-9
88-4
87-19
87-18
87-16
130
120
110
100
90
80
70
60
50
metres
TILL
GRAVEL OR CONGLOMERATE OF UNCERTAIN STRATIGRAPHY
CRETACEOUS SANDSTONE AND "SHALE"
HIGHLY KAOLINIZED COAST PLUTONIC ROCKS
LOW KAOLINIZATION IN COAST PLUTONIC ROCKS
FRESH BASEMENT - GRANODIORITE / DIORITE
87-9 DIAMOND DRILL HOLE

Modified from Fargo Resources Ltd. (drill and geophysical data).

Figure B-12-2. Cross-sections of the Lang Creek kaolin deposit, (adapted after Fargo Resources drilling and geophysical data).

metres (Figure B-12-2). The Cretaceous sediments throughout most of the basin, strike northwest and dip approximately 20 degrees southwest, parallel to the paleosurface which floors the basin (i.e., the top of the primary kaolin deposit). Individual beds are difficult to correlate from hole to hole, but there are some indications that the dip of the paleosurface in the area of the deposit is steeper than bedding in the overlaying sediments.

There is a gradual decrease of kaolinization with depth in the residual deposit. The upper half is characterized by the presence of white, coarser grained kaolin crystals. With increasing depth the white colour gradually darkens to light grey. Mineralogical examination indicates that unweathered feldspar is present in the lower part of the deposit together with some swelling clays. Fargo Resources Limited report that processing studies indicate that the two types of kaolin, which are present in approximately equal proportions, can be separated. Exploration drilling to date has not established how much of the apparent thinning to the south can be attributed to lack of primary weathering and how much to erosion. The northern limit of the deposit, however, is clearly erosional.

SECONDARY KAOLIN

A number of claystone and mudstone beds interbedded with a coarser lithologic unit were intersected during the exploration drilling for residual kaolin. Preliminary tests reported by Fargo Resources indicate that this usually brown or dark grey-coloured clay and mudstone can be classified commercially as a "medium to high duty" fireclay. Such material has applications in both the refractory and ceramic industries. These so-called "brown beds" are abundant in the Lang Bay basin, but their economic potential remains to be established.

ECONOMIC POTENTIAL

According to company data, the drilling programs to date have outlined a primary kaolin reserve of approximately 6 million tonnes of raw material with a yield of some 15 per cent kaolin product.

DISCUSSION

Other primary kaolin occurrences have been recorded outside of Lang Bay. The description of the Sumas Mountain fireclay deposit near Abbotsford contains reports of kaolinized basement rocks below the basal fireclay seam. A sample of claystone associated with the No. 1 coal seam at the Quinsam colliery near Campbell River on Vancouver Island has given a refractory value of 31.5 pyrometric cone equivalent (PCE), which is indicative of a high kaolin content. These observations from three widely separated Cretaceous sedimentary outliers between the Fraser Lowland and the northern part of Vancouver Island suggest that a period of intense weathering preceded and possibly overlapped the deposition of basal Upper Cretaceous sediments which consequently represent potential exploration targets.

ACKNOWLEDGMENTS

The assistance of Fargo Resources Limited, in particular Lauch Farris (President), Jim Currie (Vice-President, Exploration) and Colin Harvey (Project Geologist), is much appreciated. The test of PCE value for claystone from the Quinsam coal deposit was kindly provided by Clayburn Industries Limited of Abbotsford and is gratefully acknowledged.

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HARRISON GOLD, ABO, RN (092HSW092)

(Fig. B1, No. 13)

By H.P. Wilton, W.J. McMillan, and G.E. Ray

LOCATION:	Lat. 49°20′ Long. 121°45′ 92H/5 NEW WESTMINSTER MINING DIVISION. 4 kilometres northeast of Harrison Hot Springs, on east side of Harrison Lake; 100 kilometres east of Vancouver.
CLAIMS:	RN, FF, MBI, HOT 1-8, COLD 1-4.
ACCESS:	Highway 9 from Agassiz and Harrison Hot Springs.
OWNER:	Abco Resource Corporation, 40%; Bema Gold Corporation, 60%.
OPERATOR:	KERR ADDISON MINES LIMITED (until July, 1988); BEMA GOLD CORPORATION (after July, 1988).
COMMODITIES:	Gold, silver.

INTRODUCTION

Gold-silver mineralization on the Harrison Gold property consists mainly of a series of flat to gently dipping, veins of thin quartz-sulphide veins confined within a series of quartz diorite stocks. Eight separate stocks have so far been outlined on the property and all are known to be mineralized to some degree. Bema Gold Corporation has published probable ore reserves of 2.5 million tonnes grading 3.4 grams gold per tonne with an inferred additional reserve of 1.9 million tonnes of the same grade, all within the Jenner stock.

EXPLORATION HISTORY

Gold was first discovered sometime prior to 1972 in the outcrop of a prominent shallow-dipping quartz-sulphide vein 0.3 metre wide which cuts the Portal stock on what is now the RN claim. The vein was mined intermittently by several operators between 1972 and 1982, both from surface and from a 60-metre adit. Recorded ore shipments during that period totalled 642.8 tonnes containing 30 443 grams of gold and 616 kilograms of copper (Allen and Allen, 1983).

Abo Oil Corporation optioned the property in early 1982 and over the next two years conducted geological mapping, soil sampling, geophysics and diamond drilling totalling 3341 metres in 34 holes. In the fall of 1984 Kerr Addison Mines Limited entered into a joint venture agreement with Abo Oil and, in 1985, drilled a further five holes totalling 833.5 metres (Clendenan and Bruland, 1986). The joint venture drilled 15 more holes in 1986 in addition to carrying out extensive mapping and surface surveys. (Bruland and Clendenan, 1987). The work done in 1987 was highlighted by 182 metres of underground drifting in the Jenner stock followed by the pilot milling of a 1053-tonne bulk sample.

GENERAL GEOLOGY

Most of the property is underlain by sedimentary and volcaniclastic rocks considered to be part of the Brokenback Hill Formation of Early Cretaceous age. At least eight small calcalkaline stocks, composed mainly of quartz diorite with minor diorite, intrude and locally metamorphose these country rocks. It is possible that the stocks coalesce at depth and are offshoots from the nearby Hicks Lake batholith. Sericite associated with a quartz vein in the RN adit (Portal stock) yielded a potassium-argon age of 24.5±1.0 Ma (Ray, 1985). Hornblende and biotite from a similar quartz diorite intrusion at Doctors Point on the west side of Harrison Lake gave potassium-argon ages ranging between 19 and 25 Ma while muscovite from an associated gold-bearing vein has yielded an age of 23 Ma (Ray, 1986). It is concluded that the quartz diorite plutons and the related gold-bearing quartz veins are Late Oligocene to Early Miocene in age (20-25 Ma).

The eight mineralized stocks explored so far are multiphase with many dark to light-coloured dykes cutting a predominantly quartz diorite host. Locally the diorite displays steeply dipping, alternating light and dark layers varying from one to a few centimetres in thickness. This mineralogical segregation may be due to crystal separation during stock emplacement as described by Ray for the similar stocks at Doctors Point. Disseminated pyrrhotite averages 3 to 5 per cent in the quartz diorite. Detailed mapping by company geologists in 1988 showed a series of small pipe-like stocks separated by hornfelsed country rocks; these probably represent cupolas or offshoots of a larger intrusion at depth. Emplacement is interpreted by project staff to have been passive (B.H. Kahlert, personal communication, 1989). They describe screens of metamorphosed country rocks and xenolith-rich areas that may represent borders between successive intrusive phases. Contact metamorphism with production of biotite-epidote-garnet hornfels characterizes hangingwall contacts and roof zones of the stocks. Some of these zones are recrystallized and granitized producing transitional contacts. Footwall metamorphic halos are narrow and contain numerous dykes.

MINERALIZATION

Gold mineralization is restricted to a series of flat to gently dipping thin quartz-pyrrhotite veins within the quartz diorite stocks. Veins and other quartz segregations are abundant within the adjoining hornfels they contain pyrrhotite but no significant gold. Beyond the hornfels, in unaltered country rock, pyrite becomes the dominant sulphide and the quartz veins are barren.

Veins within the stocks are mineralized with pyrrhotite, minor pyrite (po:py averages 9:1), native gold and accessory scheelite, sphalerite, chalcopyrite, gold tellurides, arsenopyrite and molybdenite. Visible gold is common, either isolated in quartz or adjacent to pyrrhotite concentrations; the ore is free-milling. Larger, better-grade veins often contain pyrrhotite concentrated along the margins and as internal bands. Calcite occurs occasionally as a minor gangue mineral. The quartz veins have little or no wallrock alteration halo. Veins cutting stocks in the southern part of the property (*e.g.* Hill) seem to contain more base metal sulphides, scheelite and arsenopyrite, and have a higher silver:gold ratio than those to the north (*e.g.* Jenner).

The mineralized quartz veins are mainly shallow-dipping to the west, east and south. Those striking north and dipping east and west are interpreted by company geologists to be in conjugate shears generated by horizontal east-west compression. The third set, generally wider and more gold-rich than the other two, dip steeply southwest and are believed to have filled tension fractures at the bisectrix between the conjugate shears. Sulphide partings and tension gashes along some veins suggest that they formed while shearing was in progress; others are clearly younger and offset older veins. Drilling data suggest that the mineralized veins in most, if not all, stocks are concentrated into stacked, horizontal "zones" of unknown origin. A perhaps more important zoning is indicated by denser concentrations of veins near the margins of the stocks. This latter zoning is believed due to earlier brittle fracturing contemporaneous with silica-gold segregation.

A steeply dipping, richly mineralized breccia zone extends northward for several hundred metres from the southwest edge of the Hill stock. It widens downward from 30 metres wide at surface to more than 100 metres wide where intersected by preliminary drilling. The fragments are sharply angular to subrounded and are composed mainly of sericitized country rock. The matrix comprises 20 to 30 per cent of the breccia and consists mainly of quartz, calcite and dark green chlorite with local vuggy quartz patches and infillings of massive pyrrhotite and minor pyrite and chalcopyrite. The breccia also contains minor arsenopyrite and coarse black sphalerite; the higher gold values are associated with sphalerite-rich sections. The margins of the breccia locally have sulphide-rich zones up to 20 metres wide. These contain massive pyrrhotite with traces of chalcopyrite. Skarn-like garnet-pyroxene assemblages are developed where the breccia crosscuts calcarous sediments. One of the better drill intersections in the breccia assayed 1.56 grams per tonne gold, 4.4 grams per tonne silver and 0.56 per cent zinc over 29 metres.

WORK DONE

Exploration in 1988 consisted of geological mapping, geophysical and geochemical surveys, and a total 10 044 metres of underground and surface diamond drilling.

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THE STRUCTURAL CONTROL OF THE TULAMEEN COMPLEX AND OUTLYING ULTRAMAFIC BODIES (92H/7, 10)

(Fig. B1, No. 14)

By Jacqui Rublee
University of Ottawa

INTRODUCTION

The Tulameen ultramafic to syenitic complex, located 23 kilometres northwest of Princeton, is a structurally controlled ultramafic body within Triassic Nicola rocks. It has recieved much attention as the probable source of placer platinum mined from its drainage system since the turn of the century. The nature and distribution of platinum-group elements and associated chromite, magnetite, and refractory olivine within the dunites, pyroxenites and pyroxene syenites which comprise the Tulameen complex, have been studied by many investigators including Camsell (1913), Rice (1947), Findlay (1963, 1965, 1969), Cabri *et al.* (1973), Raicevic and Cabri (1976), St. Louis (1984), St. Louis *et al.*, (1986), White (1987), Eastwood (1960, 1961), and by several mineral exploration groups working in the Tulameen-Princeton area. An additional exploration target within the Similkameen mining district has been mineralized northwest and northeast-trending quartz-carbonate vein systems within sheared Nicola metavolcanic and metasedimentary rocks. Recent mapping of the Tulameen complex and outlying ultramafic bodies suggest these structures are localized along the regional ductile and brittle shear zones which control the map distribution of the ultramafic and syenitic rocks.

The focus of a 3-week study in 1988 was to investigate small isolated ultramafic "intrusions" briefly alluded to by Camsell (1913), Rice (1947), Eastwood (1961) and Findlay (1963). Four outlying, fault-bounded ultramafic bodies of hornblendite to pyroxenite composition were located in areas corresponding to high magnetic anomalies. The nature of the relationships between these small ultramafic bodies with host Nicola Group rocks has additional implications for the style of tectonism within the Tulameen River area. This current project, supported by a British Columbia Geoscience Research Grant, constitutes part of an M.Sc. thesis project in progress at the University of Ottawa.

GEOLOGICAL SETTING

The Tulameen complex, exposed over an area of approximately 50 square kilometres, is a northwest-trending elongate body emplaced into Triassic Nicola Group rocks at the western margin of the Intermontane Belt. The Mount Lytton - Eagle complex, parallels the 14 kilometre length of the ultramafic complex to the west. Terrigenous sedimentary and volcanic rocks of the Tertiary Princeton Group occur to the southeast (Figure B-14-1). A regional northwest-trending foliation, dipping steeply to the southwest, which characterizes the western parts of the Nicola Group and southern parts of the Mount Lytton - Eagle complex (Monger, 1985; Grieg, 1988) extends into and east of the Tulameen complex (Figure B-14-2). Northwest-trending mylonitic shear zones, which both bound and dissect the complex, emphasize the apparent conformity of the Tulameen complex to this regional structural grain. The formation of this foliation is bracketed by the probable latest Jurassic to earliest Cretaceous (Grieg, 1988), foliated to gneissic biotite granodiorite of the Eagle complex and unfoliated Tertiary dacitic and basaltic dykes. All of the units within the study area have been disrupted by Tertiary brittle faulting (Figure B-14-3).

The following brief synopsis of the Nicola Group and ultramafic rocks generally corroborates earlier work by Findlay (1963), and Nixon and Rublee (1988).

NICOLA GROUP

The oldest rocks within the study area belong to the Triassic Nicola Group. In the vicinity of the Tulameen complex, the Nicola Group is characterized by intermediate to mafic pyroxene-feldspar-porphyritic flows, pyroclastic and volcaniclastic rocks interbedded with limestones and argillites. This lithologic assemblage is correlated with the western Nicola belt (Preto, 1977). Affinities between the Nicola volcanic rocks in the Tulameen area and Mortimer's (1986, 1987) "Type 1" (strongly augite-pyroclastic alkaline), subduction-related lavas is suggested by the pyroxene-dominated mineralogy of the mafic rocks.

The Nicola group shows a mappable variation in lithology, metamorphic grade and strain, east and west of the ultramafic to syenitic body. Greenschist-grade (epidote-albite-chlorite) pyroxene-feldspar flows, pyroclastic breccias and tuffs predominate to the east. Within half a kilometre of the eastern contact with the ultramafic body, a strain gradient is best manifest within Nicola pyroclastic breccias by a progressive

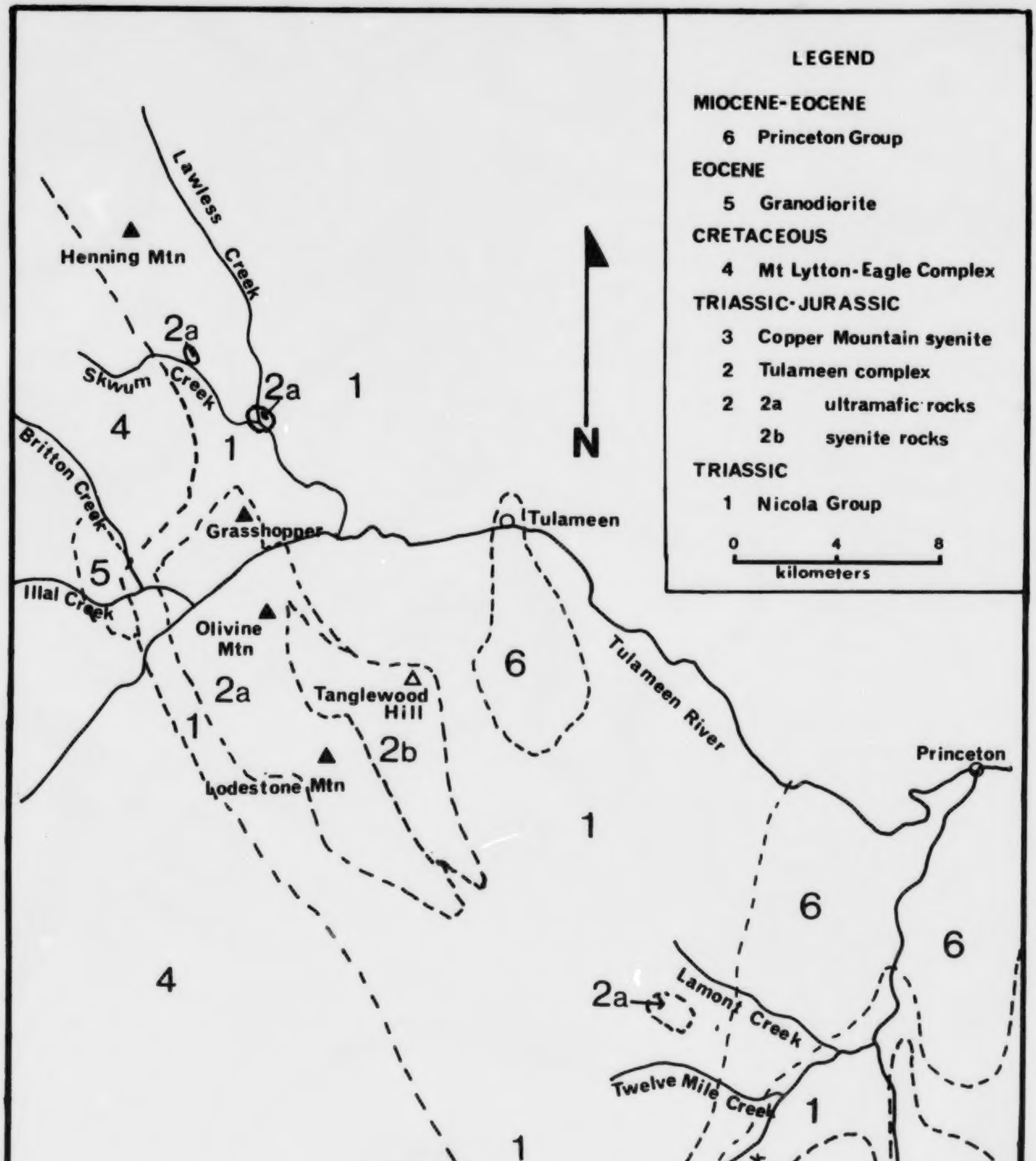
LEGEND
MIOCENE-EOCENE
6 Princeton Group
EOCENE
5 Granodiorite
CRETACEOUS
4 Mt Lytton-Eagle Complex
TRIASSIC-JURASSIC
3 Copper Mountain syenite
2 Tulameen complex
2 2a ultramafic rocks
2b syenite rocks
TRIASSIC
1 Nicola Group
0
4
8
kilometers
N
Lawless Creek
Henning Mtn
2a
Skwum Creek
2a
1
4
1
Britton Creek
Grasshopper
Tulameen
5
Illal Creek
Olivine Mtn
6
2a
Tanglewood Hill
Tulameen River
1
2b
Lodestone Mtn
Princeton
1
6
6
4
2a
Lamont Creek
Twelve Mile Creek
1
1
Whipsaw Creek
3
6
Skaist Mtn
2a
2b
1
Friday Mtn

Figure B-14-1. Generalized geologic map of the Tulameen Ultramafic Complex (modified after Findlay, 1963).

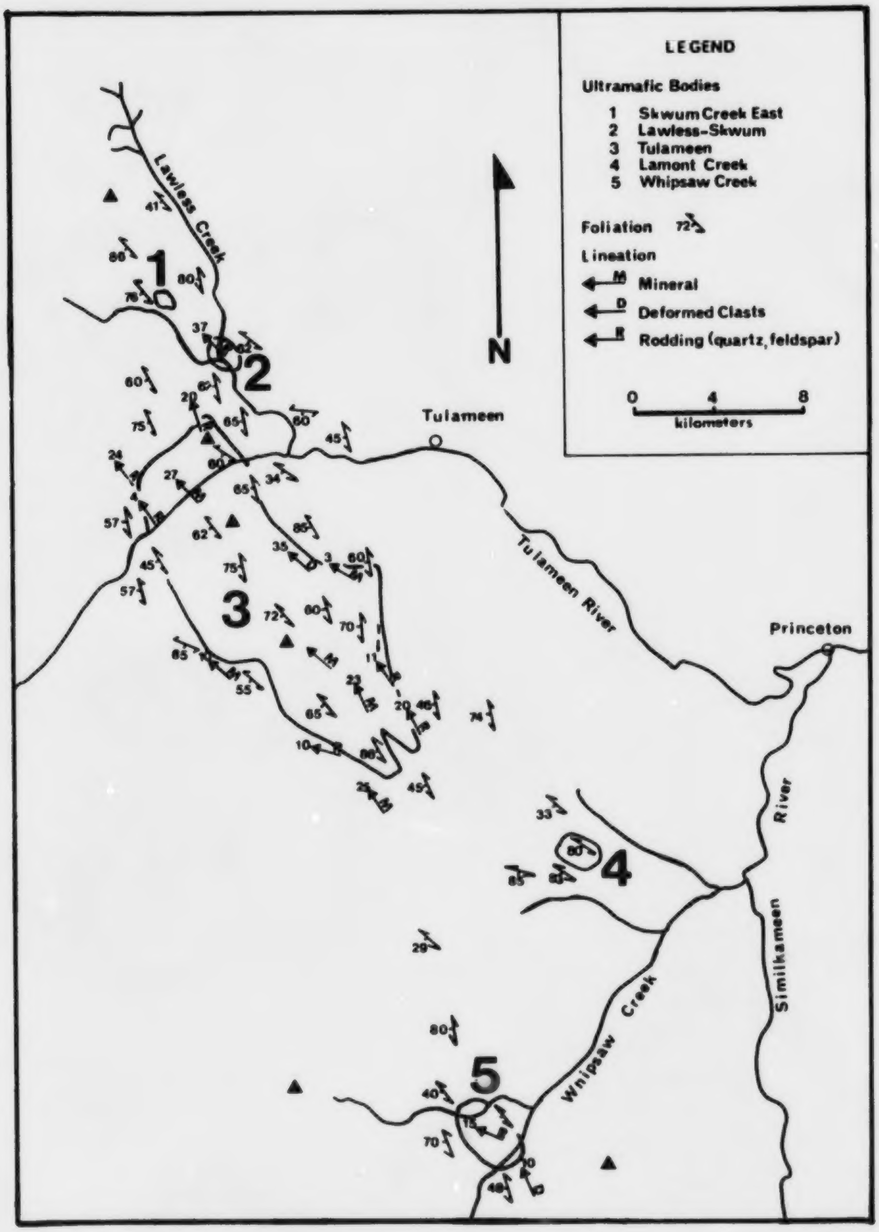
LEGEND
Ultramafic Bodies
1 Skwum Creek East
2 Lawless-Skwum
3 Tulameen
4 Lamont Creek
5 Whipsaw Creek
Foliation 72
Lineation
M Mineral
D Deformed Clasts
R Rodding (quartz, feldspar)
0 4 8
kilometers
N
Lawless Creek
Tulameen
Tulameen River
Princeton
River
Similkameen
Whipsaw Creek
1
2
3
4
5

Figure B-14-2. Representative measurements of ductile structural fabrics in the Nicola Group, Mt. Lytton - Eagle Complex and Tulameen Complex (modified after Eastwood, 1961).

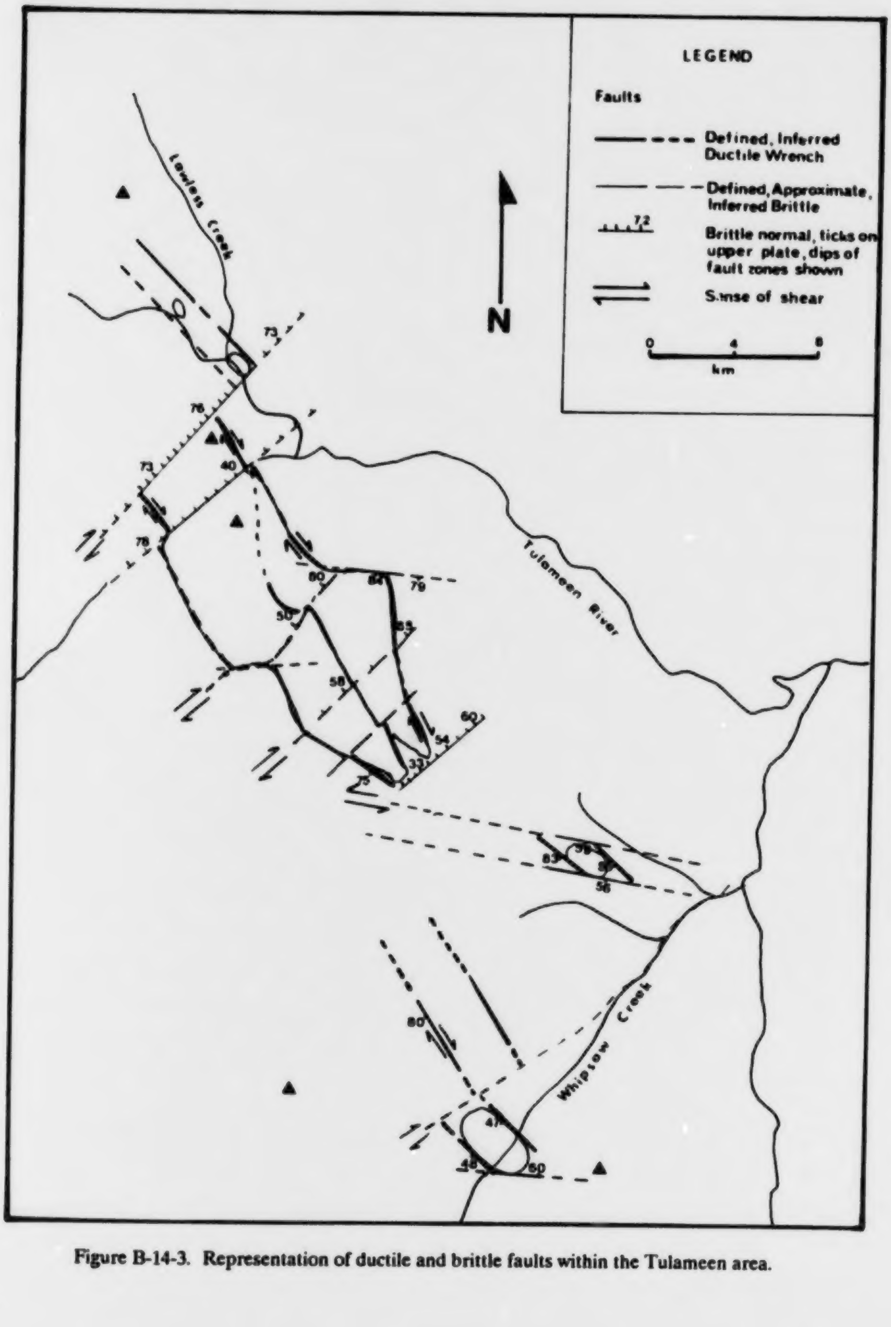
LEGEND
Faults
Defined, Inferred Ductile Wrench
Defined, Approximate, Inferred Brittle
72
Brittle normal, ticks on upper plate, dips of fault zones shown
Sense of shear
0
4
8
km
N
Lawless Creek
Tulameen River
Whipsaw Creek
73
76
73
40
78
80
84
79
50
63
58
60
54
33
75
83
59
56
80
47
48
60

Figure B-14-3. Representation of ductile and brittle faults within the Tulameen area.

elongation (up to 10:1 elongation ratio) of the bomb-sized clasts and stretching of the pyroxene crystals in the matrix, both imparting a well-developed lineation to the sheared rocks. The more homogeneous volcanic flows and tuffaceous units become highly foliated chlorite-muscovite schists with incipient biotite developed along the foliation planes.

An increase in metamorphic grade, from greenschist to amphibolite facies, is observed within the belt of Nicola Group rocks, 1 kilometre wide, which separates the Tulameen and Eagle complexes. Close to the Tulameen ultramafic rocks, the Nicola Group rocks are characterized by biotite-chlorite-quartz and sericite schists, impure marbles and garnet-epidote skarn zones. At the contact with the Tulameen complex, the metasediments are banded light and dark green, well-lineated mylonites. As noted along Illal Creek, progressively sheared garnet-epidote-bearing schists produce spectacular dark green to lime-green layered tectonites with red-brown, rotated augen of garnet up to 4 centimetres in diameter. Westward, towards the Nicola - Eagle Complex contact, the Nicola metasedimentary rocks are characterized by highly strained, hornblende-biotite schists, siliceous amphibolites and coarse marbles. The increase in metamorphic grade within the Nicola Group, from lower greenschist to amphibolite, is consistent with regional observations documented by Grieg (1988).

TULAMEEN ULTRAMAFIC-SYENITE COMPLEX

Simplistically, the map pattern of the Tulameen complex can be represented by two bodies, with the bulk of the ultramafic rocks to the northwest and syenites to the southeast. The ultramafic portion is dominated by massive chromitiferous dunite which outcrops over a considerable lateral (10 kilometres) and vertical (950 metres) distance. Olivine clinopyroxenite partially envelopes the dunite and extends to the southeast of Lodestone Mountain. Findlay (1963), described the contact between the dunite and clinopyroxenite as a "hybrid" zone, characterized by inclusions of one rock type in the other unit. This relationship is observed in exposures along Illal Creek and Tulameen River, where irregular clots to pod-like segregations of pyroxenite crystals, suggestive of disrupted igneous layering, occur within the dunite. Football-sized dunite inclusions are abundant within the pyroxenite. Expansion fractures radiating out from the dunite into the pyroxenites suggest their incorporation prior to serpentinization. Within 200 metres of the contact, parallel pyroxenite dykes up to 10 centimetres in width, intrude the dunite on the south flank of Olivine Mountain, and along Illal Creek and Tulameen River.

Resistant, white-weathering intercumulate to cumulate plagioclase noted on the waterworn pyroxenitic-gabbroic rocks in the Tulameen River (Nixon and Rublee, 1988) and Illal Creek define rare igneous modal grading. Whereas these features are crudely developed along Illal Creek, secondary black hornblende needles overgrow the pyroxene-feldspar layering and obscure depositional features within the cumulate rocks along the Tulameen River. Estimates of facing direction implied from truncation, slumping and disruption (by pyroxene inclusions) of the modal layering suggest both southwest (Nixon and Rublee, 1988) and northeast directions. However, the significance of these features is suspect due to the extent of both ductile and brittle faulting throughout the Tulameen complex.

The pyroxene syenite mass is a compositionally homogeneous, coarse-grained mass which underlies the plateau-like topography to the east. Pyroxene-cored actinolitic amphiboles and euhedral laths of potassium feldspar up to 1 centimetre long impart a crude but measurable mineral lineation, which is parallel to the lineation within the bounding mylonites. Saussuritized, ragged plagioclase and pink potassium feldspar contribute a mottled bright-green to pink appearance to the unit. Chalk-white weathered prisms of apatite up to 1 centimetre in length, comprise up to 5 per cent of the mode. Subtle variations in grain size and mineralogy of the syenite body are evidenced by fine-grained equivalents which resemble the Copper Mountain stock, and the presence of minor olivine and biotite. Close to ductile shears, the progressively strained syenite is converted to a well-lineated mylonite with porphyroblasts of potassium feldspar. A uranium-lead analysis for age determination of this unit is in progress at the Geological Survey of Canada in Ottawa.

The relationship between the ultramafic and syenitic rocks is difficult to resolve in the field due to the lack of outcrop and hornblende-magnetite-apatite skarn-like alteration of the two bodies at the contact. Marginal to the ultramafic body the clinopyroxenite is modified by the presence of coarse-grained to pegmatitic clusters of hornblende crystals which impart a blotchy appearance to the originally homogeneous rock. This modified pyroxenite, one of the larger mappable units within the Tulameen complex, occurs as northwest-trending bands between the ultramafic and syenite bodies. Approaching the contact with the syenites the modal proportion of amphibole in the pyroxenite increases from approximately 15 per cent in the hornblende clinopyroxenites to 100 per cent, as small lenses to bands of pegmatitic hornblendite, at the contact. Magnetite and apatite are confined to the hornblende-bearing rocks. Eastwood (1960) detailed the distribution of magnetite in the modified pyroxenite as individual grains disseminated through the pyroxenite and lenses or vein-like bodies which consist largely of magnetite. Apatite is easily identified as chalky white inclusions within the hornblende crystals, in amounts proportional to the amphibole in the rock (i.e. from trace in the hornblende pyroxenites to 5 per cent in the hornblendites). A metasomatic origin of the amphibole is implied by reaction rims of hornblende around inclusions of pyroxenite within the syenite as well as "fragment-like bodies of feldspathic rock with shells of amphibole in the pyroxenite" (Eastwood, 1960), and the local concentration of hornblendite along ductile shears within and at the margins of the complex. Hornblende is not observed as a modal mineral within the pyroxene syenite.

ULTRAMAFIC OUTLIERS

Several small ultramafic bodies are linearly distributed along the trend of the Tulameen complex, northwestwards towards Mount Henning, and southeast to Whipsaw Creek (Figure B-14-1). The ultramafic rocks, which range in composition from olivine and hornblende pyroxenite to hornblendite, occur as highly foliated lenses within mylonitized Nicola Group greenstone and metasedimentary rocks. The two northern bodies are confined to a northwest-trending ductile shear zone which underlies the ridge separating Skwum and Lawless creek valleys, approximately 2.5 kilometres northeast of the Tulameen complex. One of the two bodies that outcrop in the Whipsaw Creek drainage basin, 17 kilometres southeast of the Tulameen complex, has been translated eastwards, off this regional structure, presumably by Tertiary brittle wrench faults.

SKWUM CREEK ULTRAMAFIC BODIES

A small ultramafic body exposed along Lawless Creek from the mouth of Skwum Creek to 500 metres upstream from this confluence, is reached by a 1-kilometre trail which branches south at Kilometre 21 on the Britton Creek logging road, 21 kilometres northwest of the town of Tulameen.

Hornblende-bearing clinopyroxenite, lying in fault contact with chlorite-biotite schists to the southwest and mafic volcanic rocks to the northeast, outcrops in ravines along Skwum and Lawless creeks. The southwestern contact of the clinopyroxenite with Nicola Group, exposed in Skwum Creek, is separated by a 2-metre-wide, northwest-trending, iron stained carbonate-quartz shear zone (Eastwood, 1961). The northeastern contact, which crosses Lawless Creek at the point where the access road crosses the river, is a tectonic breccia-zone comprised of blocks of clinopyroxenite, hornblendite, pyroxene syenite, Nicola mafic volcanic rocks and a pink feldspar porphyry. Throughout the 500 metre section of ultramafic rock, the clinopyroxenite is extensively serpentinized and disrupted by brittle faulting evidenced as clay gouge, calcite-chalcedony cemented wallrock breccias and crush zones. Stepped quartz and tremolite slickenfibres on polished northeast-trending fault planes which parallel the course of Lawless Creek indicate a dextral oblique-slip displacement. Two types and orientations of carbonate-chalcedony veins are abundant. The most prevalent are northeast-trending, northwest-dipping tension gashes characterized by layered calcite-chalcedony walls around comb-textured quartz interiors. The second type are more planar, northwest-trending banded quartz-calcite veins which dip moderately to the southwest.

Approximately 4 kilometres northwest of the Lawless Creek ultramafic tectonite, a small pod of hornblendite is exposed in a logging road cut on the west side of the ridge separating Skwum and Lawless creeks. The lens, oriented northwest and dipping steeply to the southwest, is 5 metres wide, with mylonitic margins around a coarse-grained core. Orange-weathering, pyritized mylonitic Nicola mafic volcanic rocks (bladed feldspar porphyry) bound the ultramafic body to the southwest, whereas garnet-bearing biotite schists are in fault contact to the northeast.

WHIPSAW CREEK AREA

Two highly sheared ultramafic pods, outcrop 9 kilometres east southeast and 15 kilometres southeast of the Tulameen complex between the headwaters of Lamont and Corral (also referred to as Twelve-mile) creeks and Forty-seven and Forty-three tributaries of Whipsaw Creek, respectively. The more northerly body is exposed near Kilometre 17 of the Lamont Branch which forks northwest off the Whipsaw Main logging road at Kilometre 2. This logging road system joins Highway 3, 15 kilometres south of Princeton.

LAMONT ULTRAMAFIC BODY

At Kilometre 17 on the Lamont Branch, a hornblende-bearing pyroxenite body outcrops discontinuously along the north side of the road for approximately 200 metres. The ultramafic body is contained within a zone of mafic pyroxene and feldspar-bearing flows, pyroclastic breccias, tuffs and argillaceous rocks of the Nicola Group, 6 kilometres wide, which is bounded to the southwest by the Mount Lytton - Eagle complex and olivine basalts of the Princeton Group to the northeast. This package of Nicola volcanic rocks, as well as all other lithologic units in the area, are extensively disrupted by Tertiary brittle faulting. A northwest-trending mylonitic fabric, within Nicola porphyritic flows and breccias near the contacts with the hornblende pyroxenite, is overprinted by several east-trending, heavily iron-stained breccia and clay gouge zones.

The ultramafite is comprised of four northwest-trending lenses of hornblende pyroxenite, averaging 12 metres in thickness, which are separated by covered areas 40 to 60 metres wide. Hand trenches through the overburden in these areas expose strongly schistose northwest-trending chloritic shear zones dipping steeply to the southwest. Smaller, foliated pods of hornblendite-rimmed pyroxene-syenite and a porphyrytic pyroxene-feldspar mafic volcanic rock crop out at both southeastern and northwestern margins of the ultramafic body. A limonite-stained block of foliated, dull grey-blue weathering, porphyritic pyroxene-feldspar mafic volcanic rock, 12 metres wide, contains a distinctive grey-green porphyritic dyke with stubby to acicular black hornblende and abundant (5 per cent) chalky-white apatite.

The heterogeneous texture of the hornblende pyroxenite suggests that it is a hybrid between a coarse-grained, essentially mono-mineralic, grass-green colored pyroxenite and a coarse-grained to pegmatitic black hornblendite. Hornblende occurs as irregular clots of stubby black crystals which are locally concentrated in lens-like segregations of hornblendite. Small lenses of magnetite and narrow pegmatitic veins of hornblendite with interstitial plagioclase (altered to epidote) and apatite are associated with this patchy distribution of hornblendite. Chalcopyrite and pyrite occur as disseminated grains within the mafic pegmatites and at the sheared margins of the ultramafic pods. Iron-stained quartz slickenfibres on highly polished east-trending fault planes plunge gently (20 degrees) to the east-southeast.

WHIPSAW CREEK ULTRAMAFIC BODY

Small, strongly sheared hornblendite and pyroxenite pods, and foliated blocks of syenite within actinolitic to amphibolitic schists and mylonitized pyroclastic rocks of the Nicola Group, occur within a 2-square-kilometre area north and south of Whipsaw Creek between Friday and Skaist mountains. Outcrops are largely confined to road cuts and logging scars, due to a thick cover of quaternary alluvium.

On the north side of Whipsaw Creek, knocker-like outcrops of strongly foliated and lineated ultramafic rock are observed in a large clearcut at Kilometre 18 on the Whipsaw Creek logging road and in the creek bank. Foliated and lineated actinolitic Nicola schists border the ultramafic rocks to the northeast. Well-developed S-C fabrics and asymetric amphibole augen within the schists, observed in road cuts along the 47-mile Branch of the Whipsaw Main road, imply dextral shearing. Banded pink and dark green mylonites, intruded by abundant closely spaced, concordant, foliated granodioritic dykes, strikingly similar to the sheared garnet-bearing biotite schists at the western contact between the Tulameen complex and Nicola metasedimentary rocks exposed in Illal Creek, confine the ultramafic rocks to the southwest, close to the Mount Lytton - Eagle Complex.

The ultramafic body is 100 metres wide and comprised of several northwest-trending lenses dipping steeply southwest. These lenses, which average 15 metres in length and vary in width from 2 to 5 metres, are penetratively foliated pyroxene-porphyroclastic amphibolitic schists. The marginal pods, exhibiting the highest strain, are well-lineated (feldspar rodding) mafic mylonites. Northwest and northeast-trending fault-hosted quartz-carbonate stringers and veins with disseminated pyrite, chalcopyrite and galena occur within sheared Nicola rocks near their contact with the ultramafites and Eagle dykes and pluton.

The Garrison logging road, which branches south at Kilometre 15 on the Whipsaw Creek main logging road, provides access to the ultramafic and syenitic bodies south of Whipsaw Creek. Between kilometres 16 and 17 on the Garrison logging road, a strongly fractured and limonite-stained syenite outcrops in road cuts. The syenite is extensively deformed by breccia and clay gouge zones up to 15 metres wide. One kilometre to the northwest of the syenite, at kilometre 18, a white-weathering gouge zone, 15 metres wide, separates strongly foliated and fractured syenite from a narrow lens of sheared hornblende-bearing pyroxenite.

Along a southwest-trending spur off the Garrison road, foliated syenite is disrupted by high-angle brittle faults with gently plunging, northwesterly directed iron-stained striations. Approximately 1 kilometre to the southwest, a chaotic mélange of syenite, Nicola Group pyroclastic breccia, pyroxenite and hornblendite is separated from foliated Nicola greenstones by northwest-trending, southwest-dipping clay gouge zones. Pencil-shaped, stretched volcanic clasts within the pyroclastic breccias define a gently plunging, northwest-directed lineation. Tensional gashes filled by coarse chlorite and quartz are frequently observed.

STRUCTURAL GEOLOGY

The Tulameen complex and outlying ultramafic bodies are aligned along a northwest-trending zone which is coincident with the transition from ductilly deformed, amphibolite-grade schistose Nicola Group rocks on the west to brittley foliated to undeformed, greenschist-grade volcanic rocks east of the ultramafic complex. The dominant rock fabric, which diminishes in intensity eastwards, is a northwest-trending, southwest-dipping foliation measured within Nicola Group, Tulameen and Mount Lytton - Eagle complex rocks (Figures B-14-2, 4a). This foliation generally strikes between 140 and 150 degrees, although in areas disrupted by Tertiary cross-faulting, it is deflected northwards (110 to 120 degrees). A less homogeneous structural fabric is in the Nicola greenstones east of the Tulameen complex, manifest by the development of chlorite schist close to discrete shear zones within unfoliated pyroclastic breccias, tuffs and mafic flows.

Within the Tulameen complex, planar fabrics are much better displayed in the syenites than the monomineralic dunites and pyroxenites. An igneous foliation and mineral lineation, defined in the syenite by the alignment of pyroxene-cored amphiboles and feldspar laths, parallels the chlorite schistosity and mineral lineation developed within sheared syenites near northwest-trending, southwest-dipping mylonite zones. Planar fabrics within the ultramafic rocks are best developed in the strongly foliated and lineated, northwest-trending, southwest dipping margins of the pyroxenite pods exposed southwest of the Tulameen complex.

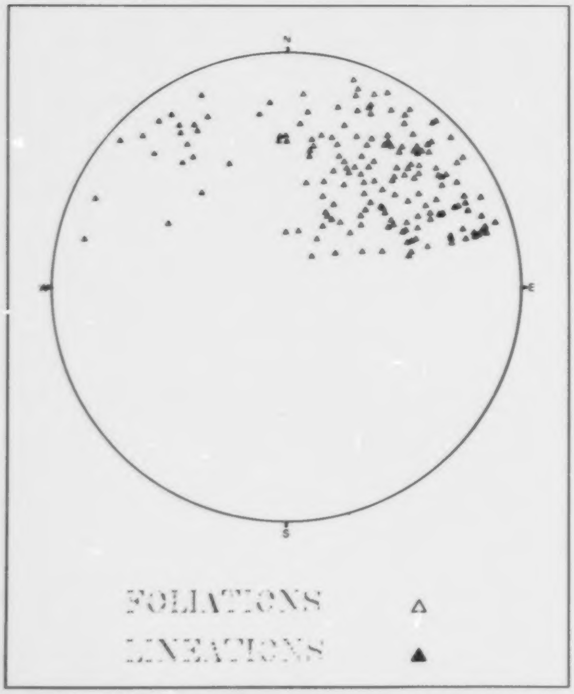

Figure B-14-4a. Ductile structures in the Nicola Group and Tulameen Complex. Open triangles represent foliations and closed triangles represent lineations.

Steep strain gradients, toward the mylonite zones which bound the Tulameen complex and enclose outlying ultramafic bodies, are evidenced by the transformation of foliated rocks to lineated tectonites over short (50 metres) distances. The lineations (Figures B-14-2, 4a), which consistently plunge gently towards the northwest on the plane of the foliation (Figure B-14-4a), are defined by stretched volcanic clasts and quartz rodding within the bordering Nicola Group rocks, stretched porphyroclasts of potassium feldspar within syenite, and elongated augen of amphibole and pyroxene in mylonitized pyroxenites.

A characteristic structural feature of the Tulameen area is the conformity between bedding, foliation, dyke and quartz-carbonate vein orientations. Compositional layering in impure marbles interbedded with schistose Nicola rocks west of the Tulameen complex, and bedding contacts between argillaceous tuffs and mafic flows east of the ultramafic body, strike northwest and dip to the southwest. Parallel swarms of foliated granodioritic dykes intruding the Nicola metasedimentary rocks near the contact with the Mount Lytton - Eagle complex, and parallel sets of steeply dipping, unfoliated Tertiary hornblende basalt dykes observed within Nicola Group and Tulameen rocks near their contact are consistently concordant with the foliation (Figure B-14-4b). Exceptions to this uniform dyke orientation are deformed Nicola feldspar porphyry dykes, Tulameen basalt and pyroxenite dykes and the unfoliated granitic dykes which crosscut the mylonitic fabric at the western contact between the Nicola Group and Tulameen complex exposed on the west flank of Grasshopper Mountain.

Three vein sets are distinguished in the Tulameen area (Figure B-14-4b). The most prevalent, are boudinaged, heavily iron stained, quartz-carbonate veins which are confined to the northwest-trending mylonitic shear zones. The second type are northeasterly trending comb-textured and symmetrically crustified veins and discontinuous zones of hydrothermally altered breccia composed of quartz, chalcedony and calcite. Both types of these fault-hosted veins may be either barren of visible sulphides or mineralized with disseminated pyrite, chalcopyrite, galena and sphalerite. The third type are east-trending

TABLE B-14-1
EXPLORATION ACTIVITY IN THE TULAMEEN AREA
1982-1987

Company/ Operator	Commodity Target	Location	Assessment Report No.
Huldra Silver	Au, Ag, Pb, Zn Q-Cc veins	Treasure Mt.	11947
Abermin/Calais	Au, Ag, Cu, Pb, Zn Q-Cc veins	Mount Rabbitt	13396 15315 14158 14098
G.Crooker	Cu, Au, Mo Q veins, bx	Mt. Henning	16487
Cressy	Cu Q-Cc veins	Skwum-Henning Ridge	11810
Fortress Resources	PGE, Au, Ag Ultramafic Cc-Q veins	Skwum-Lawless Cr. confluence Host rock	16015
Twin Eagle Resources	Au, Ag, Cu, Pb, Zn Q veins	Grasshopper Mt.	15850
Newmont	PGE, Cr Ultramafic Host rock	Grasshopper Mt.	14448 10063
Monica Resources	Cu, PGE Ultramafic Host rock Q-Cc veins	Grasshopper Mt.	14448 10063 7944
North American Platinum	PGE Ultramafic Host rock	Olivine Mt	16323
A&M Exploration	Cu, Fe	Olivine Cr.	15434
DK Platinum	PGE, Cr, Cu Ultramafic Host rock	Olivine Mt.	11666 16125
Tarnation Minerals	Au, Cr, Ni Ultramafic Host rock Shear zones	Olivine Mt.	11736
Imperial Metals	PGE Ultramafic Host rock	Olivine Mt.	15976 12054
Dolmage Campbell	Fe, V, Ti Magnetite	Lodestone Mt.	16579
D.J. Stewart	Cu Sheared Nicola-Tulameen contact	Tanglewood Hill Lodestone Mt.	16661 12506 11888
Count Fleet Exploration	? Sheared Nicola-Tulameen contact	Newton Cr. Tulameen complex south	15326
Hector Resources	Au, Cu Q veins	Lamont Cr.	15317
Lone Jack Resources	Au, Ag, Cu, Pb, Zn Q-Cc veins	Whipsaw Cr.	15042
Consort Energy	Au, Ag, Cu, Pb, Zn Q veins	South of Whipsaw Cr.	12484 12703
World Wide Minerals	Cu, Pb, Zn Q veins	South of Whipsaw Cr.	14048

quartz-chlorite-filled tension gashes which occur within the central part of the Tulameen complex which is extensively disrupted by Tertiary normal faulting. These extensional veins are generally unmineralized, although coarse-grained pyrite and chalcopyrite has been observed within veinlets.

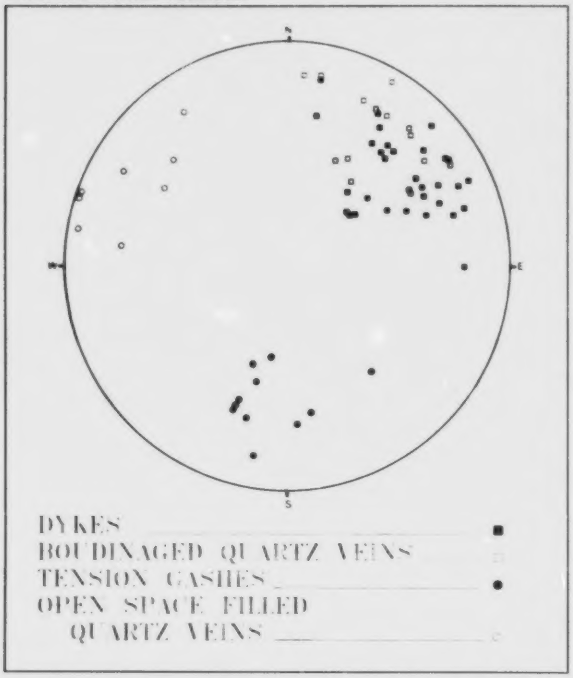

Figure B-14-4b. Brittle structures in the Nicola Group and Tulameen Complex. Filled squares represent foliated granitic and unfoliated basaltic dykes; open squares represent boudinaged quartz carbonate veins. Open circles represent open space filled carbonate quartz veins and closed circles represent chlorite, quartz and calcite filled tension gashes.

Brittle faults occur in the Tulameen area as steeply dipping breccia, clay gouge and iron carbonate bearing chloritic shear zones which parallel the courses of creeks and rivers in the area. The northeast-trending brittle structures are extensional in nature, with open-space-filled calcite and quartz/chalcedony veins and cemented wallrock breccias. Steps on the coarse fibrous tremolite and quartz which define the subhorizontal slickensides consistently indicate dextral oblique-slip movement along these faults. East-trending, south-dipping brittle fault zones are characterized by steeply dipping, clay and chlorite gouge zones as well as steeply dipping, sideritic shear zones with both subhorizontal and subvertical striations along the fault planes.

In the Blakeburn open-cast mine, located 1.5 kilomtres due east of Tanglewood Hill, coal-bearing strata of the Eocene Allenby Formation of the Princeton Group (Goodarzi and Van der Flier-Keller, 1988) are disrupted by high-angle normal faults. Large blocks in the hangingwall of the normal faults are rotated such that the originally subhorizontal strata are near vertical.

Examination of the Tulameen River section described by Nixon and Rublee (1988), refutes the existence of a thrust fault between the dunite and olivine pyroxenite units. What was described as a 2-metre-thick limestone, presumably derived from the Nicola Group, emplaced between the two ultramafic units, is a thick carbonate shear zone within the dunites. Brecciated clasts of buff-colored serpentinite with relict chromite grains are cemented by a coarse-grained carbonate matrix.

EXPLORATION ACTIVITY IN THE TULAMEEN AREA

A summary of some of the exploration companies involved in the Tulameen area over the past 5 years is presented in Table B-14-1. Whereas companies holding claims within the Tulameen complex are investigating the platinum-group element potential of the ultramafic rocks, those with properties along the faulted boundaries of the ultramafic to syenitic bodies are following up base and precious metal values within quartz and carbonate vein systems. These northwest and northeast-trending fault-hosted veins exhibit similarities with mesothermal gold-quartz vein systems, associated with regionally extensive high-angle shear zones, as described by Sibson *et al.* (1988).

CONCLUSIONS

Regional-scale ductile and brittle structures control the map pattern of ultramafic rocks in the Tulameen complex. The northwest-trending, southwest-dipping mylonitic zone, which envelops the Tulameen complex and outlying ultramafic bodies, extends for at least 50 kilometres from Mount Friday to Henning Mountain. Preliminary analyses of the kinematics of the L-S tectonites within the shear zone suggest a dextral sense of shearing based upon S-C fabrics, rotated porphyroclasts and asymmetric pull-aparts. The northwest-trending mineral foliation, and gently plunging, northwest directed primary (igneous) mineral lineation within the syenitic rocks of the Tulameen complex suggests their emplacement during strike-slip faulting. The small outlying ultramafic bodies are interpreted to represent Tulameen complex rocks which have been tectonically dismembered by moderate to steeply dipping, northeast and east-trending normal faults with oblique slip movement.

In addition to the platinum-group element potential of the ultramafic rocks within the Tulameen area, fault-hosted quartz-carbonate vein systems with precious and base metal values warrant continued exploration interest in the Tulameen area.

ACKNOWLEDGMENTS

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NOTES

TULAMEEN PLACERS 92H/7, 10

(Fig. B1, No. 15)

By Graham T. Nixon, L.J. Cabri, and J.H.G. Laflamme

LOCATION:	Lat. 49°30′ Long. 120°51′ 92H/7, 10 SIMILKAMEEN MINING DIVISION. Tulameen ultramafic complex situated 23 kilometres northwest of Princeton, and platinum and gold-bearing placer gravels that extend downstream for a distance of some 40 kilometres along the Tulameen River and into the Similkameen River.
CLAIMS:	GRASSHOPPER 1 and 2.
OWNER:	Monica Resources Limited.
OPERATOR:	LONGREACH RESOURCES LIMITED.
ACCESS:	By paved highway to Princeton and Tulameen, and from there by logging road to Grasshopper Mountain either along the Tulameen River (11 kilometres) or roads leading northward along Lawless Creek and then westward to Murphy Lakes and the northern side of Grasshopper Mountain.
COMMODITY:	Platinum group elements.

ORIGIN OF PLATINUM NUGGETS IN TULAMEEN PLACERS: A MINERAL CHEMISTRY APPROACH WITH POTENTIAL FOR EXPLORATION

INTRODUCTION

Platinum and gold-bearing placers in the Tulameen-Princeton region are historically the largest producers of platinum in British Columbia, yielding an estimated 620 000 grams of platinum between 1889 and 1936 (O'Neill and Gunning, 1934; Rice, 1947; and recently summarized by Rublee, 1986). According to Rice, the ratio of gold to platinum averages about 4:1 in the lower reaches of the Tulameen and Similkameen rivers but increases upstream, reaching about 1:1 in the immediate vicinity of the ultramafic complex. Present-day placer operations are small but the search for lode deposits in the Tulameen has accelerated considerably in recent years.

Previous studies have documented platinum group minerals (PGM) in placer nuggets and lode occurrences (Harris and Cabri, 1973; Cabri and Harris, 1975; Cabri and Feather, 1975; Cabri *et al.*, 1973; St. Louis *et al.*, 1986). In this report we present new analytical data for the PGM and demonstrate the potential of gangue-mineral chemistry for tracing the source of platinum nuggets found in the placers.

The PGM and coexisting oxide and silicate minerals from lode occurrences in the Tulameen mafic-ultramafic complex and placer gravels in the region were analyzed using an electron microprobe. This instrument, a commonly neglected tool in mineral exploration, provides quantitative nondestructive analysis of mineral grains measuring as little as several microns across. The analytical results indicate that although the PGM exhibit significant differences in composition and texture between placer and lode occurrences, the chemistry of associated chromite and olivine enclosed in platinum nuggets is sufficiently distinctive to allow unique characterization of their hostrocks. In the case of the Tulameen complex, which has a total outcrop area of some 60 square kilometres, only rock types within the olivine-rich core of the intrusion (an area of about 5 square kilometres) are suitable hosts to the platinum nuggets studied in this investigation. Furthermore, the geochemical signature is so complete that only chromite-rich horizons could have hosted the platinum mineralization.

GEOLOGIC SETTING

The Tulameen mafic-ultramafic complex occurs in the southwestern Intermontane Belt near the western edge of the Quesnellia tectonostratigraphic terrane. The age of the complex is believed to be similar to that of its host rocks, the Late Triassic (Carnian-Norian) metavolcanic and metasedimentary lithologies of the Nicola Group (Roddick and Farrar, 1971, 1972; Preto, 1979). The Nicola rocks are considered to form part of a Late Triassic volcanic arc assemblage that extended along the western margin of North America (Mortimer, 1986). Further details of the regional geology are given by Nixon and Rublee (1988).

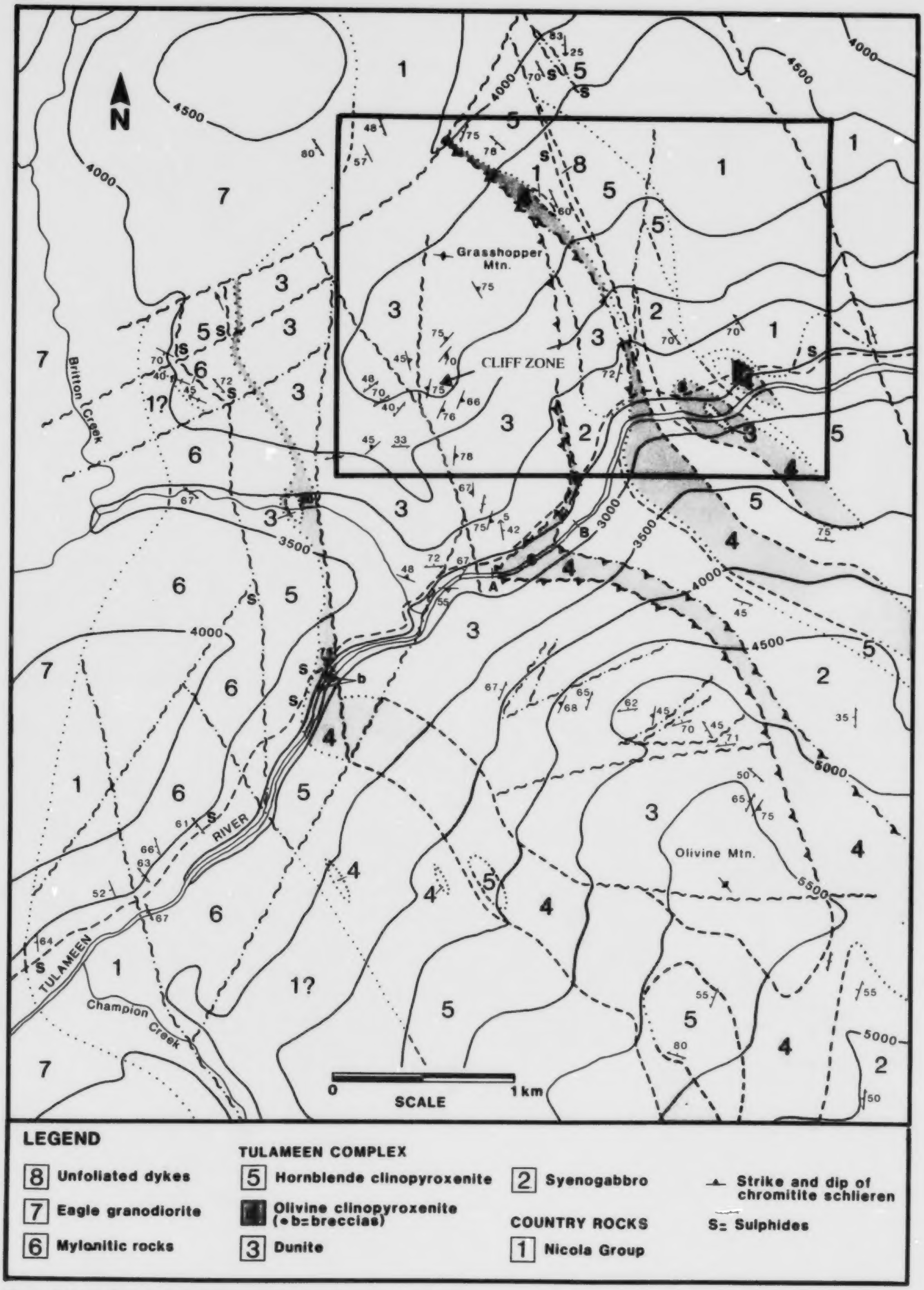
N
Grasshopper Mtn.
CLIFF ZONE
Olivine Mtn.
Britton Creek
TULAMEEN RIVER
Champion Creek
4000
4500
3000
3500
5000
5500
A
B
b
0
1 km
SCALE
LEGEND
8 Unfoliated dykes
7 Eagle granodiorite
6 Mylonitic rocks
TULAMEEN COMPLEX
5 Hornblende clinopyroxenite
4 Olivine clinopyroxenite (• b=breccias)
3 Dunite
2 Syenogabbro
COUNTRY ROCKS
1 Nicola Group
Strike and dip of chromitite schlieren
S= Sulphides

Figure B-15-1. Detailed geologic map of the northern part of the Tulameen complex (after Nixon, 1988 and Findlay, 1963) showing the Grasshopper 1 and 2 claim block. The Cliff zone marks the location of platiniferous chromitites analyzed in this study.

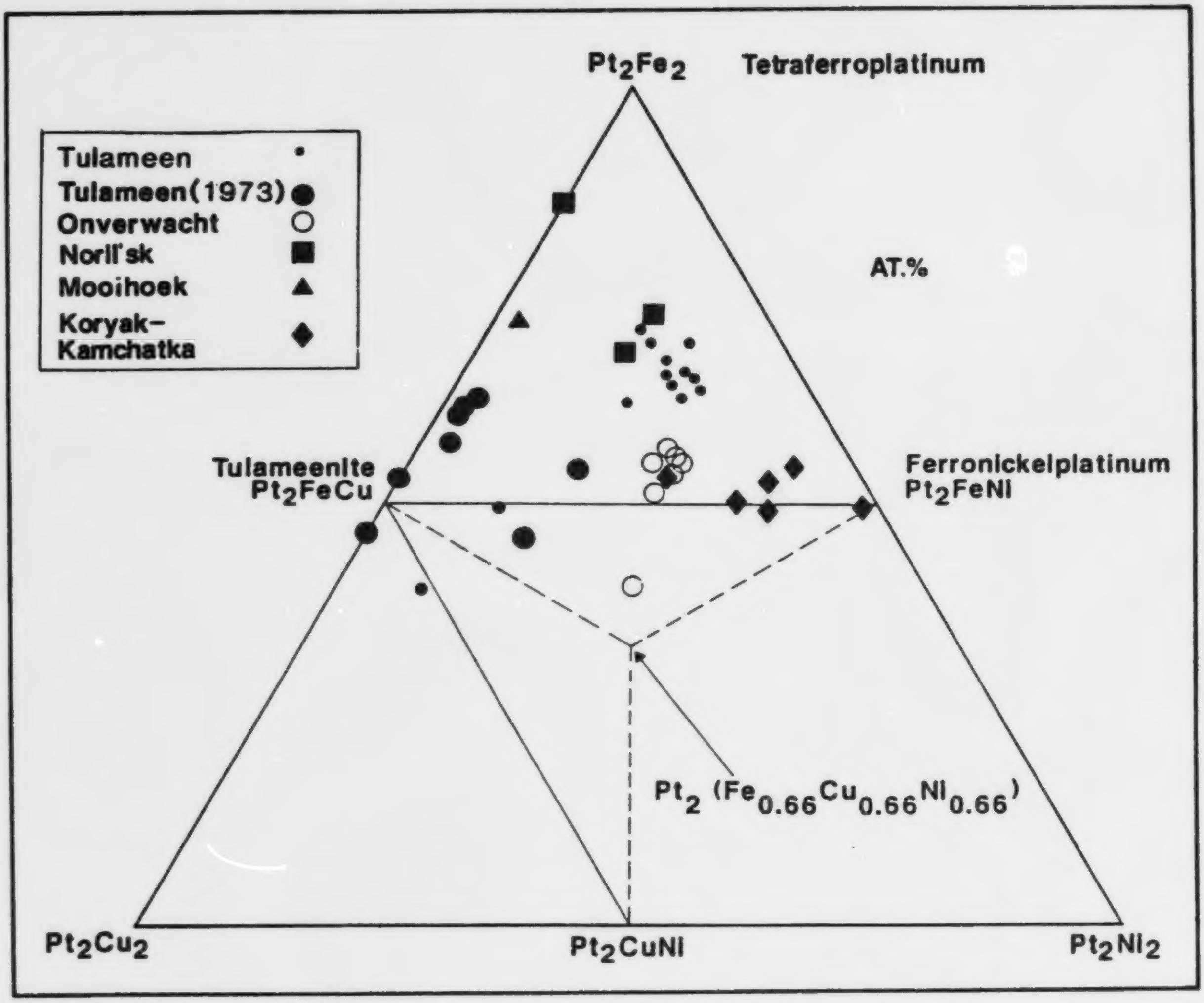

Figure B-15-2. Ternary Pt_2Fe_2-Pt_2Cu_2-Pt_2Ni_2 diagram showing compositions of platinum-iron alloys in Tulameen lode occurrences (this study) and nuggets (Cabri et al., 1973, indicated as Tulameen (1973)) compared to alloys in other occurrences worldwide.

The ultramafic and gabbroic rocks of the Tulameen complex belong to a class of intrusions known as Alaskan-type complexes (Irvine, 1974; Findlay, 1963, 1969). Many of these intrusions in southeastern Alaska are characterized by a crude zonal arrangement of rock types extending from dunite in the core through orthopyroxene-free peridotites and clinopyroxenites to hornblendite and gabbro at the margins. However, the Tulameen complex is one of a number of such bodies in British Columbia that has been deformed such that contacts with host rocks are commonly faulted and original internal geometry is poorly known (Nixon and Rublee, 1988; Nixon *et al.*, 1989a, 1989b, 1989c).

SAMPLE DESCRIPTION AND ANALYTICAL PROCEDURES

Lithogeochemical sampling and geologic mapping of the Tulameen complex was completed in September 1987 during the initial phase of a program to evaluate the mineral potential of Alaskan-type complexes in British Columbia (Nixon and Rublee, 1988; Nixon, 1988). A representative suite of rock types was selected for microprobe analysis of silicate and oxide minerals. In addition, three chromitite samples from the "Cliff zone" on the Grasshopper 1 claim at Grasshopper Mountain (Figure B-15-1) were selected for PGM

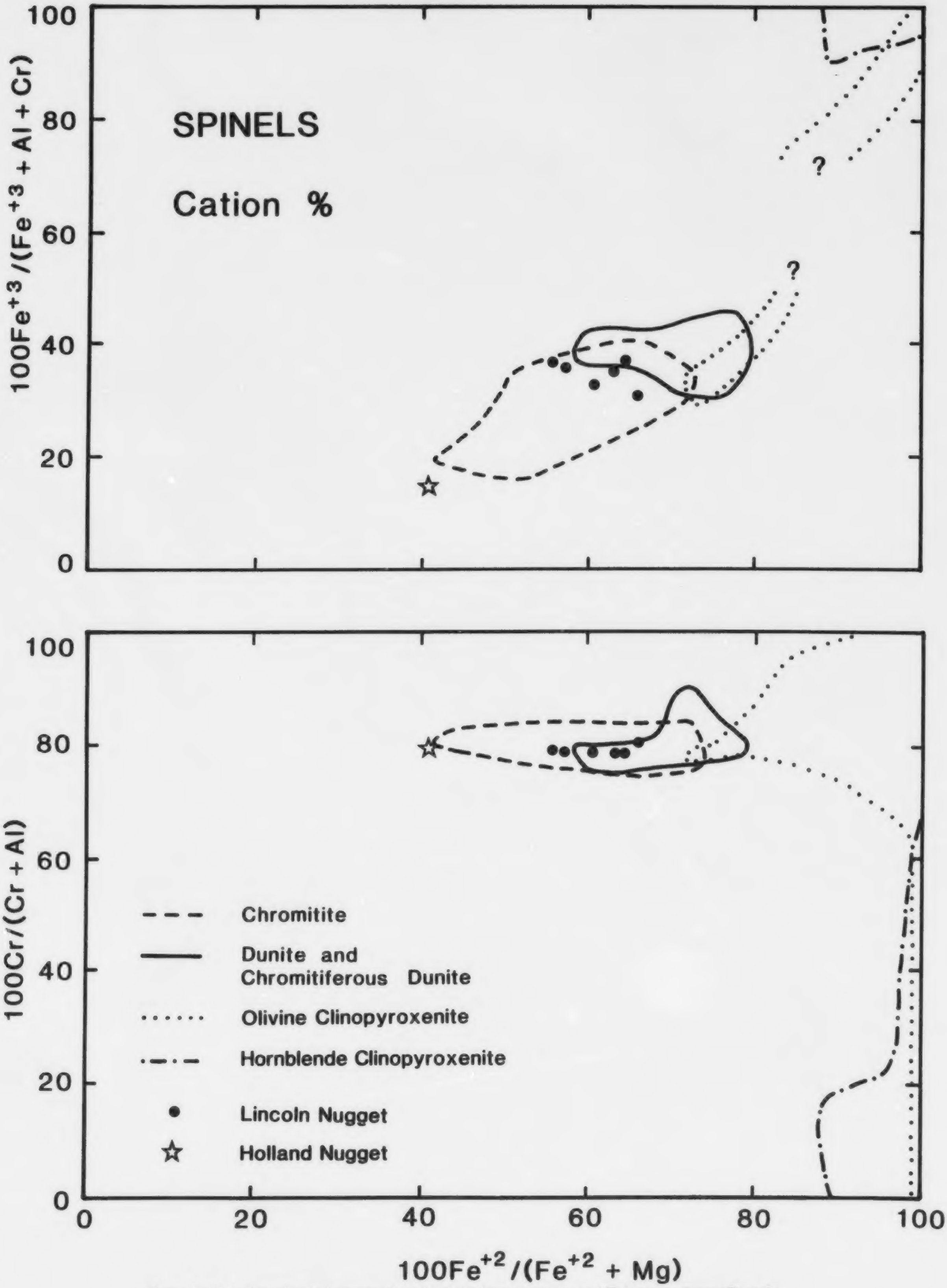

Figure B-15-3. Plot of spinel compositions in platiniferous nuggets and Tulameen ultramafic rocks.

analysis on the basis of highly anomalous PGE assays (2500-17000 ppb platinum and platinum:palladium ratios between 75 and 500).

Two nugget specimens previously analyzed for PGM by Raicevic and Cabri (1976) were reanalyzed for coexisting gangue minerals: the "Lincoln nugget" is believed to have come from the former Lincoln mine about three quarters of a kilometre below the mouth of Britton Creek; the "Holland nugget" was obtained from the Tulameen River by the late Dr. S. S. Holland. Both nuggets contain abundant cumulus chromite and lesser olivine enclosed within the PGM.

Mineral specimens were prepared as polished thin sections and carbon coated. Minerals in placer nuggets and all platinum alloys were analyzed at CANMET using a JEOL-733 microprobe and energy-dispersive techniques operated at 15 kilovolts with a beam current of 12 nanoamperes. All other chromite and olivine grains were analyzed at Queen's University using an ARL instrument fitted with an energy-dispersive system. Operating conditions comprised an accelerating voltage of 15 kilovolts, specimen current of 100 nanoamperes, and 2 to 5-micron beam diameter. Natural and synthetic minerals were used as standards and raw data processed using conventional on-line data reduction techniques.

RESULTS

The analytical results are summarized below and shown in Figures B-15-2 to 4. A more complete report of this research is currently being prepared for publication.

PLATINUM GROUP MINERALS

The most common PGM identified in chromitites from Grasshopper Mountain are platinum-iron alloys including several species that are thought to be tetraferroplatinum (Pt_2Fe_2), isoferroplatinum (Pt_3Fe), and tulameenite (Pt_2FeCu) with minor rhodium, palladium, iridium and nickel. They generally occur as euhedral inclusions in chromite ranging from less than 2 microns across to 30 x 35 microns. Other PGM in decreasing order of frequency are: geversite ($PtSb_2$), rhodium and iridium sulpharsenides (hollingworthite/irarsite series, i.e. RhAsS-IrAsS), sperrylite ($PtAs_2$) and single grains of erlichmanite (OsS_2), laurite (RuS_2). and irarsite (IrAsS). Platinum also occurs as a solid solution in native copper (up to 36.5 weight per cent platinum). The largest grain found in all three samples was a 50 x 120 micron grain of platinum oxide intergrown with geversite, platinum-bearing native copper, a nickel antimonide and a nickel oxide(?) enclosed in a vein of serpentine cutting chromite. Minor serpentine, chlorite and magnetite are also present with trace amounts of nickel sulphides (possibly millerite and heazlewoodite), nickel antimonides (breithauptite plus two others), nickel arsenides (maucherite plus another), a nickel-cobalt-iron sulphide, native copper, silver and a copper oxide.

Some of the PGM, especially the platinum alloys, are different to those previously encountered in the placer nuggets (*see* Figure B-15-2, Tulameen (1973) symbols). The principal platinum alloy, tentatively identified as tetraferroplatinum, has compositions lying near the center of a triangle bounded by tetraferroplatinum - ferronickelplatinum - tulameenite, and is most comparable to the compositions of platinum-iron alloys at Noril'sk (Figure B-15-2). One tulameenite grain lies on the Pt_2FeCu - Pt_2FeNi join and another on the Pt_2FeCu - Pt_2CuNi join. Another difference between lode and nugget minerals is the much larger grain size of platinum-iron alloys in the nuggets.

CHROMITE

The compositional fields for over 200 analyses of chromium-bearing spinels are plotted in Figure B-15-3. Spinels from the major lithologic units of the Tulameen complex occupy different compositional fields and become more oxidized and depleted in chrome with increasing iron/magnesium ratios, although chrome/(chrome+alumina) ratios remain rather uniform over most of the differentiation interval. Analyses of chromites in the Lincoln nugget fall within the fields of chromitite and chromitiferous dunite to dunite, whereas chromites within the Holland nugget (average of 8 random analyses) plot just outside the magnesium-rich end of the chromitite field. This suggests that these nuggets represent material eroded from the dunitic core of the Tulameen complex.

OLIVINE

Histograms of olivine compositions for nuggets and rock types of the Tulameen complex are shown in Figure B-15-4. Olivines within the nuggets are distinctly more forsteritic than olivines in clinopyroxenite, dunite and chromitiferous dunite, but match rather closely olivine crystals contained in chromitite horizons (both platiniferous and non-platiniferous). In detail, olivines in the vicinity of chromite-rich horizons become more forsteritic as the modal abundance of chromite increases relative to olivine. This trait has also been documented from the Turnagain complex, another Alaskan-type body in north-central British Columbia

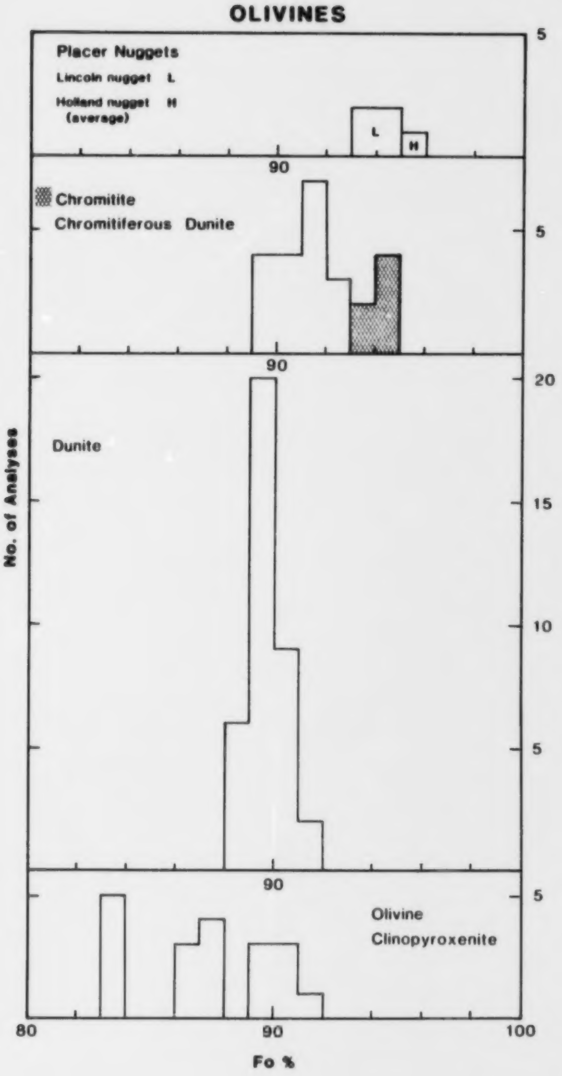

Figure B-15-4. Histogram of olivine compositions (forsterite mol. %) in platiniferous nuggets and Tulameen ultramafic rocks.

(Clark, 1978, 1980) and is predictable theoretically (Irvine, 1967). During slow cooling at magmatic temperatures, subsolidus re-equilibration of iron - magnesium ratios in chromite and olivine takes place such that olivine tends to become more forsteritic and chromite more iron-rich as temperature decreases. The amount of iron-magnesium exchange is controlled by the cooling rate and the local proportions of chromite versus olivine. Cumulus olivine crystals trapped in chromitite layers during magmatic sedimentation are expected to exhibit the highest magnesium/iron ratios (forsterite contents), which is exactly what is observed in the Tulameen chromitites. Nugget olivine compositions, therefore, provide convincing evidence for magmatic platinum precipitation within a chromite-enriched host rock, which is also consistent with the chromite data described above.

IMPLICATIONS FOR EXPLORATION

The ability to pinpoint the source of placer platinum in the Tulameen region using electron-microprobe analyses of associated gangue minerals has a great deal of potential in mineral exploration. In the optimum case, as few as one or two unaltered gangue-mineral grains may suffice to characterize the source of the PGM. This technique could become a powerful exploration tool even if it were used to examine heavy mineral separates that have no platinum visible to the naked eye but yield anomalously high assay values for the platinum group elements. Microprobe analysis of the heavy minerals could place important constraints on the source(s) of the mineralization and the relative contributions of different source regions to the overall geochemical signature. At a time when assays are now routinely performed in commercial laboratories by increasingly sophisticated analytical techniques (inductively-coupled plasma mass spectroscopy, instrumental neutron activation analysis, etc.) it is somewhat surprising that exploration geologists and geochemists have been slow to embrace microbeam techniques among their arsenal of applied geochemical weaponry. This attitude will undoubtedly change as more studies demonstrate their potential and economic mineral deposits become even harder to find. We hope that the success we have had in characterizing the source of PGM in Tulameen placers will encourage more widespread use of microbeam techniques in mineral exploration.

ACKNOWLEDGMENTS

This project is a contribution to the Canada/British Columbia Mineral Development Agreement.

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NOTES

GEOLOGY AND EXPLORATION IN THE BRIDGE RIVER VALLEY

(Fig. B1, No. 16)

By B.N. Church

INTRODUCTION

Gold in the Bridge River valley was first located by placer miners on Gun Creek in 1859, near the present town of Gold Bridge, and on Cadwallader Creek to the south in 1865 (Patterson, 1979). Subsequent prospecting, mainly in the period 1897 to 1915, located most of the lode deposits that are the source of the gold, although discoveries continued until construction of the Mission Dam in 1959 and rerouting the main access road to the north shore of the B.C. Hydro reservoir - the present Carpenter Lake.

The principal mineral occurrences in the valley are the Wayside, Congress and Minto properties located on the main road north of Carpenter Lake 3.2, 6 and 7.7 kilometres, respectively, north and northeast of Gold Bridge; and the Reliance and Olympic properties centred 4.2 and 7.4 kilometres, respectively, north and northeast of Gold Bridge on the south side of Carpenter Lake. Underground development on these properties and much of the recorded ore production took place during the period 1933 to 1940. The Minto mine was the most important with an output of 80 650 tonnes of ore yielding 6.8 grams per tonne gold and 19.5 grams per tonne silver; the Wayside mine produced 39094 tonnes yielding 4.2 grams per tonne gold and 0.67 gram per tonne silver; and the Congress mine produced 943 tonnes yielding 2.7 grams per tonne gold and 1.4 grams per tonne silver (Harrop and Sinclair, 1985).

The object of this report is to update the geology and exploration activity in the Gold Bridge area. Much of this new exploration work consists of geological mapping, drilling and some underground development mainly by Chevron Canada Resources Ltd. on the Wayside property (Dick *et al.*, 1988; McAllister *et al.*, 1988), Levon Resources Ltd. on the Congress (Cook *et al.*, 1986), and Avino Mines and Resources Ltd. on the Minto and Olympic properties (Sampson, 1988; Friesen, 1988).

PHYSIOGRAPHY, GLACIATION AND GOLD PLACERS

The Bridge River valley cuts through the Coast Range at Gold Bridge and trends easterly and southeasterly to the western edge of the Interior Plateau near Lillooet, a distance of about 90 kilometres. Slopes rise from Gold Bridge at the west end of Carpenter Lake, at an elevation of 654 metres, to the summit of Mount Truax, the highest peak in the immediate area, at 2880 metres above sea level.

The area has been markedly sculptured by Pleistocene glaciers. The principal features are the deep, broad and straight or gently curving main section of the Bridge River valley, now occupied by Carpenter and Downton lakes and, at somewhat higher elevation, the broad flat-floored tributary valley of the Hurley River. Towards the end of the last glacial episode the melting ice lobes drained easterly to the Fraser River depositing large volumes of sand and gravel, such as presently found near the mouth of the Yalakom River. This meltwater was also responsible for carving the canyon section along the lower course of the Bridge River. With further ablation and retreat of the Hurley valley lobe, ice blockage in the main valley was removed from the area near the present west end of Carpenter Lake. Drainage was restored to the antecendant course of the Bridge River from a temporary route through Gun Lake and Pearson Pond. The thick gravel beds deposted along this temporary route were subsequently cut through by Gun Creek which was a tributary stream supplying meltwater from the northwest. It is suspected that these gravel beds are the source of the reported gold placer discoveries on Gun Creek in 1859.

Towards the end of the Pleistocene, meltwater from the Cadwallader valley deeply incised the lower section of the Hurley River valley depositing much gravel and the gold placers at the mouth of the Hurley River at Gold Bridge.

GEOLOGICAL SETTING

The first contributions to the geology of the area were by the Geological Survey of Canada, mainly by Cairnes (1937) and later by Roddick and Hutchison (1973) and Woodsworth (1977). More recent mapping and reports have been completed by Church and MacLean (1989a), Church (1987), Church *et al.* (1988a), and Church and Pettipas (1989).

The rocks of the Bridge River valley comprise the Cadwallader Group of Late Triassic age, consisting mostly of well-preserved clastic sedimentary rocks and pillow basalts, and the Fergusson assemblage (*see* Cairnes, 1937) composed of conspicuously metamorphosed ribbon cherts, phyllites, marble bands and greenstones which together with the Chisholm schist, forms part of the underplated Permo-Triassic so-called Bridge River complex (Potter, 1986). The first fossil determination (conodonts) giving a Paleozoic range to the Bridge River complex has been provided recently by M. Orchard, of the Geological Survey of Canada, on a carbonate lens sampled by the writer from a thick sequence of cherts and phyllites (Lat. 50°51.6′, Long. 122°22.2′). Garver *et al.* (1989) previously obtained a Paleozoic range from potassium-argon dating of spilitic blueschist. The oldest rocks in this assemblage are intruded by the Permian Bralorne plutonics and somewhat younger ultramafics. Fine-grained and porphyrtic late Cretaceous and Tertiary dykes are common throughout the area.

The assemblage of ribbon chert, basic volcanics and intrusions, soda metasomatism and ultramafic rocks comprise a typical ophiolitic association (Amstutz, 1986) characterizing parts of the Bridge River complex such as found in the Bralorne and Shulaps area. These rocks, including the Upper Triassic oceanic facies, cogenic with the.Cadwallader Group, are believed to have been underplated during the early Mesozoic. Evidence of underplating is (1) the development of high-pressure metamorphic facies, such as the lawsonite - glaucophane - bearing blueschists seen locally, (2) intense dynamic metamorphism manifest by many of the Permo-Triassic oceanic rocks, and (3) multiple docking sutures at the contact between rocks of the Bridge River and Cadwallader 'terranes'. It is believed that this underplating was achieved by steep reverse faulting, thrusting and stacking of the various oceanic and ocean-margin lithologies and slices of ultramafic rock from the underlying mantle (Figure B-16-1).

The middle Jurassic and early Cretaceous history is not well represented although it is known that much of the area lies within the confines of the Tyaughton trough - a former marine channel extending through the Bridge River area southeast to the Washington state border. Remnants of the sedimentary rocks deposited in this trough (the Relay Mountain Group) are preserved locally in the region, such as in a small downfaulted block in the southeast corner of the map area. It appears that the western margin of the trough was a welt coinciding with the intrusion of granite magma, similar in composition to the clasts found in the Relay Mountain Group (Church and MacLean, 1987b).

Much of the Cretaceous and Tertiary history of the area was dominated by block faulting with related basin development and transcurrent displacement such as the southeast-trending Yalakom fault system. The resulting intricate network of fractures is shown by regional mapping (Figure B-16-2) and regional magnetic patterns (Church and James, 1988).

MINERALIZATION

Mineralization in the Bridge River valley is mostly manifest by the local development of quartz-carbonate veins. A complicated system of deep fractures and shallow subsidiary splays and cross-fractures are the main ore controls and the loci of many dykes. Although no single geological event can explain the numerous mineral deposits there is a concensus that a magmatic influence is important and that the main period of

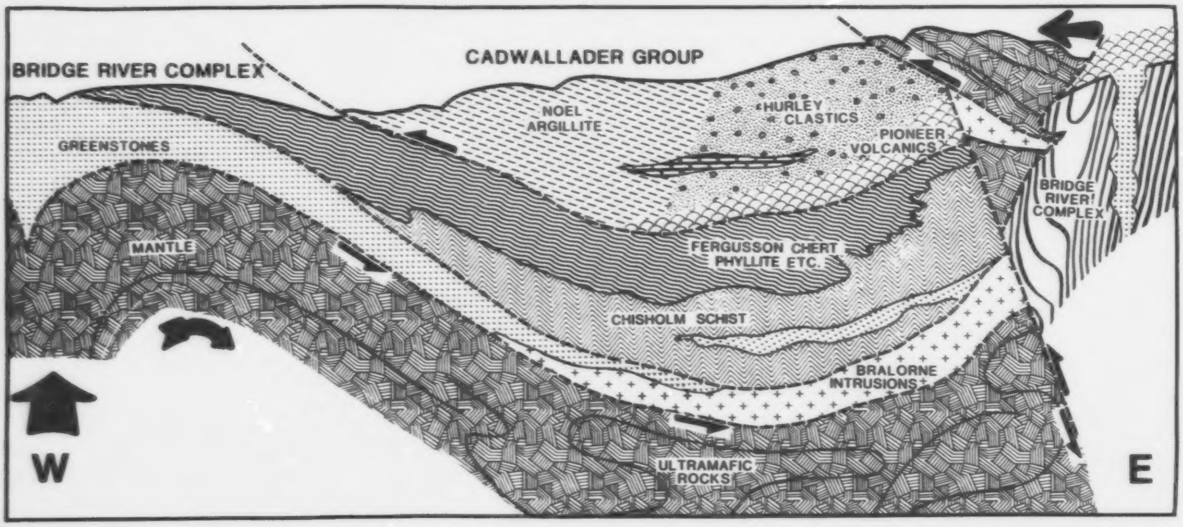
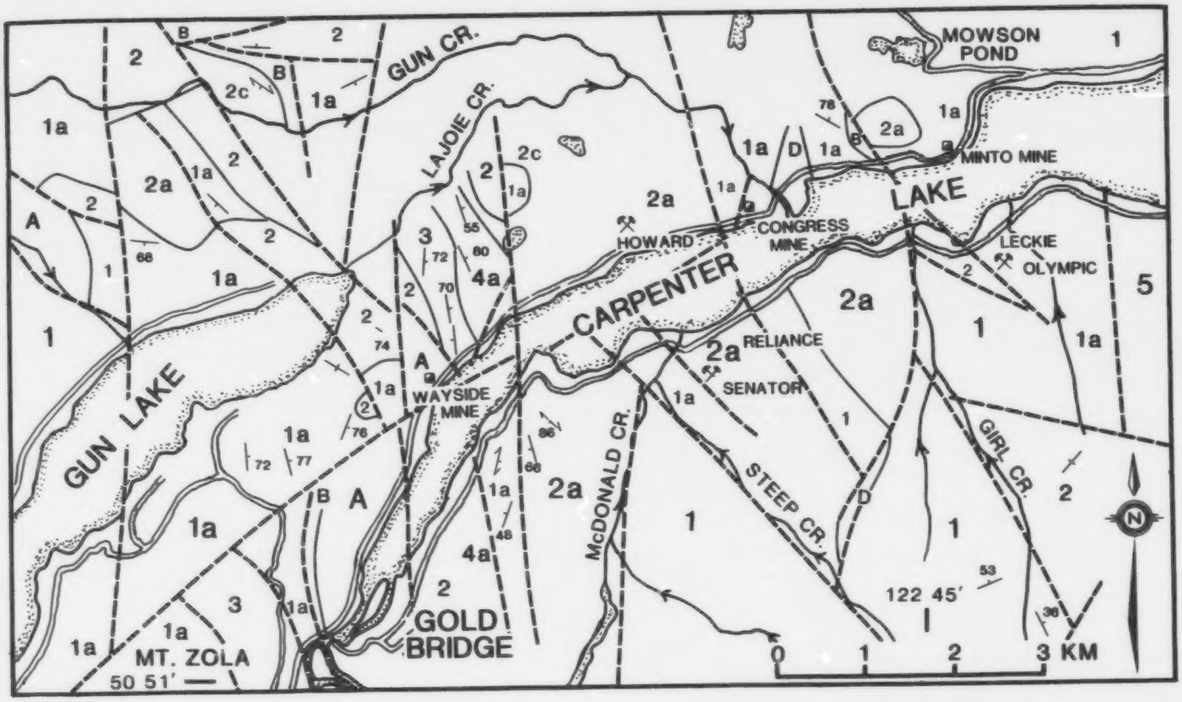


Figure B-16-1. Hypothetical cross-section of the Bridge River complex (underplated) and Cadwallader Group.


MOWSON POND
1
GUN CR.
B
2
2
B
2c
1a
1a
LAJOIE CR.
2c
2
1a
78
2a
1a
1a
D
1a
MINTO MINE
2a
1a
2
A
2
2a
LAKE
3
55
60
HOWARD
CONGRESS MINE
LECKIE
OLYMPIC
66
72
4a
1
1a
70
2
2
5
CARPENTER
2a
1
1a
2
74
1
A
RELIANCE
2a
SENATOR
1a
WAYSIDE MINE
1a
1
GUN LAKE
1a
76
72
77
86
66
B
A
1a
2a
McDONALD CR.
STEEP CR.
GIRL CR.
2
1a
1
D
1
48
4a
53
2
3
122 45′
36
1a
1a
GOLD BRIDGE
1a
MT. ZOLA
50 51′
0
1
2
3 KM
N

LEGEND

BEDDED ROCKS

UPPER JURASSIC

5	RELAY MOUNTAIN GROUP: *buchia-bearing grey shales, siltstones, tuffaceous and polymictic conglomerate*

TRIASSIC

4	CADWALLADER GROUP: *HURLEY FORMATION: soft brown and green argillites, siliceous and calcareous argillites with sandstone and conglomerate (4a), limestone (4b) and volcaniclastics (4c)*
3	*NOEL FORMATION: mainly black argillite and siltstone with some calcareous zones*
2	*PIONEER FORMATION: basaltic pillow lava (2a), aquagene breccia and lenses of limestone breccia (2b), tuffs and amygdaloidal lava (2c)*

PALEOZOIC AND EARLY MESOZOIC

1	FERGUSSON: *mostly ribbon chert (1a), ranging to biotite quartz gneiss (1b), some marble bands (1c) and fine-grained amphibolite (1d)*

IGNEOUS INTRUSIONS

TERTIARY

D	**FELSIC DYKES:** *felsic phase of the (Eocene) Mission Ridge pluton and equivalent stocks, sills and dykes*

CRETACEOUS

C	COAST INTRUSIONS: *biotite and hornblende diorite, granodiorite and granite (including the various phases of the Eldorado (Ca) and Bendor (Cb) stocks)*

MESOZOIC

B	*ULTRABASIC ROCKS: peridotite, serpentine and listwanite (Ba)*

PALEOZOIC

A	*BRALORNE INTRUSIONS: mostly heterogeneous amphibolite, diorite and gabbro with felsic veinlets*

SYMBOLS

Geological Boundary	—
Bedding — horizontal, inclined	+ 45
Foliation, schistosity	45
Fault — approximate, assumed	— — —
Roads	≈
Properties — Mines	■
Prospects	⚒

Figure B-16-2. Geology of the Bridge River valley in the Gold Bridge area.

mineralization ranged through late Cretaceous to middle Eocene time (91.4 to 43.7 Ma, Leitch and Godwin, 1988), bracketing the final emplacement of the Bendor granitic pluton (63.4 to 64.3±2.3 Ma, Church and Pettipas, 1989). Recent uranium-lead dating of a zircon sample (50°49′, 122°46.4′) by D. Murphy of the Geological Survey of Canada, provided by the writer, suggests a possible Mesozoic inheritance (69.5 to 98.4 Ma) from the west lobe of the Bendor intrusion).

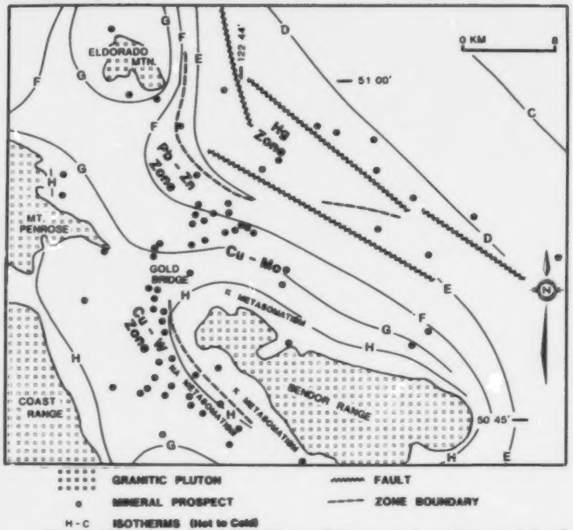


Figure B-16-3. An adaptation of the metal zoning model of Woodsworth *et al.*, 1988 and Pearson 1977 showing the distribution of mineral prospects, belts of sodium and potassium metasomatism, and hypothetical isotherms (H to C contours - computer generated) adjacent the major Coast Intrusions in the Bridge River mining camp.

Woodsworth *et al.* (1977) attribute mineral zonation in the Bridge River camp to metal dispersion outward from the eastern flank of the Coast Intrusons - a probable source of hydrothermal solutions. This is tentatively supported by on-going studies by the author. The Woodsworth model has been modified to show hypothetical thermal isograds around the main plutons and related zones of sodium and potasium metasomatism (Figure B-16-3).

The model is complicated by the superposition of low-temperature on medium or high-temperature mineral assemblages at the time of cooling of the plutons. This complexity is compounded by the intrusion of dykes into the mineral plumbing system and later faulting which has resulted in the juxtaposition of blocks exhibiting mesothermal and epithermal levels of mineralization.

DESCRIPTION OF THE PROPERTIES

The Gold Bridge section of the Bridge River valley, which includes the Wayside, Congress, and Minto mines and the Reliance and Olympic properties, is shown on Figure B-16-2. The geology underlying this section is from Church *et al.* (1987b, 1988b) and is similar, in the western part, to Cairnes (1937) with the exception that the volcanic breccias, amygdaloidal lavas and pillow lavas of the Bridge River complex and the Cadwallader Group are not readily distinguished (Church and Pettipas, 1988 pages 106-107).

WAYSIDE (92JNE070)

LOCATION:	Lat. 50°52′30″	Long. 122°49′45″	92J/15W
	The Wayside mine is 3.2 kilometres north of Gold Bridge on the north side of Carpenter Lake.		
CLAIMS:	WAYSIDE Crown grant (Lot 3036) plus 43 reverted Crown-granted claims and LAKE 1 (12 units) located claim.		
ACCESS:	From the Gold Bridge - Lillooet paved road, 3.2 kilometres north of Gold Bridge.		
OWNERS:	Amazon Petroleum Corporation Ltd. (50 per cent) and Carpenter Lake Resources (50 per cent).		
OPERATOR:	CHEVRON MINERALS LTD.		
COMMODITIES:	Gold and silver.		

The Wayside mine, consisting originally of nine working levels was developed on gold-bearing banded quartz veins in a northerly trending shear zone in Bralorne diorite at the northern extension of the 'Cadwallader break' - a geological setting similar to the Bralorne and Pioneer mines about 15 kilometres to the south (Cairnes, 1937). This similarity was the main incentive for Chevron Minerals Ltd. to renew exploration (Dick *et al.*, 1988).

A total of 21 holes (3006 metres) were completed in Chevron's 1987-88 program (Figure B-16-4). The main purpose of the holes was to locate faulted segments of the Wayside veins or similar mineralization, mostly in the Bralorne intrusion, which has been the prime target for vein prospecting because of the brittle, fissure-sustaining characteristics of this rock (McAllister *et al.*, 1988).

The 'Bralorne diorite', described by Cairnes (1937), is actually a mottled grey-green, medium to fine-grained gabbro and anorthositic gabbro containing granitic apophyses. This is the oldest plutonic rock in the area (Permian) according to preliminary radiometric dating by Armstrong (unpublished potassium-argon date of 287±20 Ma and more recent work by Leitch and Godwin 1988; uranium-lead, 270±5 Ma). The country rocks along the west contact of the Bralorne intrusion are highly deformed Fergusson cherts and phyllites (unit 1). This intrusive contact is injected by a narrow band of ultramafic rocks. The three principal formations of the the Cadwallader Group, the Pioneer volcanics, Noel argillites, and Hurley conglomerates and sandstones are faulted against the Bralorne intrusion on the northeast side.

A significant northeast-trending fault separates Noel argillite (unit 4) from the ribbon chert and phyllite (unit 1) on the east side of the property, just north of the main highway. Felsic dykes and listwanite associated with this fracture are locally mineralized and comprise the 'Two Bob zone' which has yielded anomalous arsenic and gold values.

The prime targets for future exploration remain: faulted segments of the Wayside vein system at depth and laterally, the Two Bob zone, and a copper-zinc sulphide zone in about 700 metres southwest of the Wayside mine.

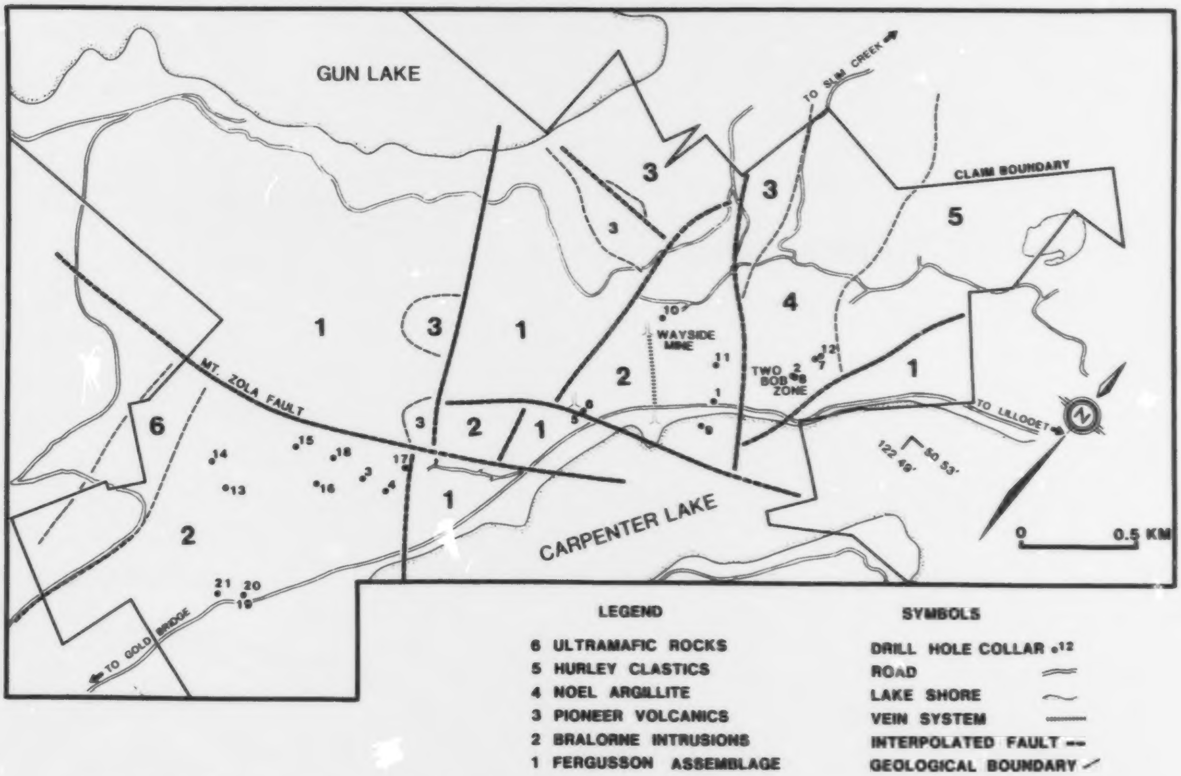

GUN LAKE
TO SLIM CREEK
CLAIM BOUNDARY
WAYSIDE MINE
TWO BOB ZONE
MT. ZOLA FAULT
TO LILLOOET
CARPENTER LAKE
TO GOLD BRIDGE
122 49'
50 53'
0
0.5 KM
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
LEGEND
6 ULTRAMAFIC ROCKS
5 HURLEY CLASTICS
4 NOEL ARGILLITE
3 PIONEER VOLCANICS
2 BRALORNE INTRUSIONS
1 FERGUSSON ASSEMBLAGE
SYMBOLS
DRILL HOLE COLLAR •12
ROAD
LAKE SHORE
VEIN SYSTEM
INTERPOLATED FAULT
GEOLOGICAL BOUNDARY

Figure B-16-4. Distribution of diamond drill holes on the Wayside property from the Chevron (1987-88) exploration program.

CONGRESS (92JNE029, 131, 132, 133)

LOCATION:	Lat. 50°52′ Long. 122°47′40″ 92J/15W The property is north of Carpenter Lake, immediately west and southwest of Gun Creek.
CLAIMS:	Crown grants STIBNITE 1-4 (Lots 7236-7239), DAVID FR. (Lot 7241), ROBERT FR. (Lot 7242), SNOWFLAKE FR. (Lot 7243), T.X. 1 FR. (Lot 7244); reverted Crown-granted claims EL DORADO (Lot 6618), TURNER X (Lots 7245-7248), RAMSDEN 1-2 (Lots 7251-7252), DORIS (Lot 7240), T.X. 6 Fr. (Lot 7249), R.E. (Lots 7250 and 7255), MAC FR. and MAC 1 FR. (Lots 7253-7254), and 30 located claims including NAP (10 units), LAC (4 units) and ACE (12 units).
ACCESS:	From the Gold Bridge - Lillooet paved road, 6 kilometres northeast of Gold Bridge.
OWNERS:	Levon Resources Ltd. and Veronex Resources Ltd.
OPERATOR:	CONGRESS OPERATING CORP.
COMMODITIES:	Gold, silver, antimony.

The Congress property is underlain by a panel of Pioneer pillow lavas and associated basalt feeder basalt dykes and small gabbro bodies (Church, 1986; Cooke *et al.* (1986). These rocks are bounded on the east and west by cataclastic facies of the Fergusson assemblage (unit 1), including milled ribbon chert and phyllite, graphitic schist, and some marble lenses (Figure B-16-5).

Mineralization consisting mainly of pyrite, arsenopyrite and stibnite accompanies the quartz veins and carbonate alteration, which are associated with northerly trending fractures and felsic dykes. Red stain

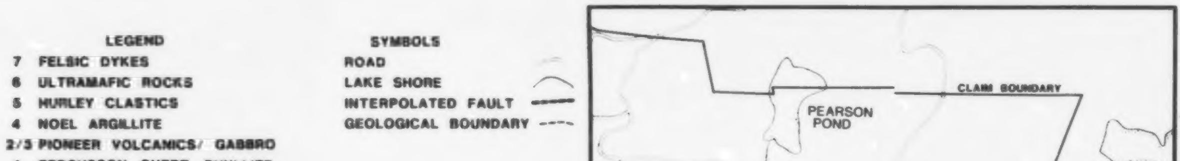

LEGEND
7 FELSIC DYKES
6 ULTRAMAFIC ROCKS
5 HURLEY CLASTICS
4 NOEL ARGILLITE
2/3 PIONEER VOLCANICS/ GABBRO
1 FERGUSSON CHERT, PHYLLITE
SYMBOLS
ROAD
LAKE SHORE
INTERPOLATED FAULT
GEOLOGICAL BOUNDARY
CLAIM BOUNDARY
PEARSON POND
PAUL ZONE
LAJOIE CREEK
122 14′
50 54′
NORTH PLATEAU POND
GUN CREEK
LOU ADIT
TO LILLOOET
CONGRESS MINE
HOWARD ADITS
ACE ADIT
CARPENTER LAKE
TO GOLD BRIDGE
N
0 800 Metres

Figure B-16-5. Geological sketch map of the Congress property and location of the main workings.

on some ore samples proved to be a mixture of iron and antimony oxides - no cinnabar was found.

The Lou zone decline, which was the focus of much recent activity, was abandoned in July 1988 because of poor mineralization at depth. However, work has continued attempting to establish continuity of the ore in the Howard section of the mine, where total drifting now exceeds 460 metres and four mineralized shoots have been intersected in the lower adit.

Owing to the fine-grained nature of the ore and the association of gold and silver with arsenopyrite and stibnite, a 250 000-litre capacity biological leaching pilot plant has been installed, with the collaboration of Giant Bay Resources Ltd., in the Plateau Pond area near the west boundary of the property. A 600-tonne sample from the Howard and Ace workings has been used to test this plant.

MINTO (92JNE075)

LOCATION: Lat. 50°53′ Long. 122°45′ 92J/15W
The property is north of Carpenter Lake and east of Gun Creek.

CLAIMS: Crown grants OMEGA and OMEGA 1-4 (Lots 5600-5604), ALPHA FR. (Lot 5719), JACK FR. (Lot 7078), GOLDEN GIRL (Lot 3660); reverted Crown-granted claims HILLSIDE EXTENSION 1-2 (Lots 3661-3662), MINTO FR. (Lot 3664), PRINCE (Lot 3665), FRANK FR. (Lot 3666), HAGMO (Lot 3667), EX FR. (Lot 3670), and OM FR. (Lot 5718), GOLDEN QUEEN (Lot 6323), HELM FR. (Lot 6328), and located claim JUNIPER.

ACCESS: From the Gold Bridge to Lillooet paved road, 7 kilometres northeast of Gold Bridge.

OWNER/OPERATOR: AVINO MINES AND RESOURCES LTD.

COMMODITIES: Gold, silver and zinc.

The Minto mine, which produced up to 100 tonnes per day, was developed on a northerly trending quartz-carbonate vein system associated with a late Cretaceous microdiorite dyke at the sheared contact between Pioneer greenstones and Fergusson (unit 1) ribbon cherts and phyllites (Pearson, 1977). The ore minerals consist mainly of pyrite, arsenopyrite, stibnite, chalcopyrite, galena and sphalerite; and less commonly tetrahedrite, jamesonite, bismuthinite and native gold (Friesen, 1988).

Recent exploration consists mainly of a series of bulldozer trenches north of the old mine workings developed from the River, Main, Hagmo and Warren adits. Many of these trenches were dug near the power line road which passes westerly from the highway across the property; other trenches and diamond-drill holes explored the central high ground (Sampson, 1988). Five new mineralized zones were located as a result of this program - the Ponderosa, View, Rainbow, Winter and North Minto, the latter two containing ore-grade gold values (Figure B-16-6).

The Winter zone, 400 metres east of the main Minto ore zone and trending subparallel to it, consists of stibnite and arsenopyrite stockwork across a width of up to 1 metre in a sheared feldspar porphyry dyke.

The Minto North zone is approximately aligned with the original Minto orebody and may be the extension of this structure. Assay results from chip samples across a 1 metre width of the zone range up to 10 grams per tonne gold.

Recent work on the adjoining Minto Extension claims gives good results. According to company reports trench sampling across widths of 1 to more than 28 metres returned values in the range 2.3 to 11.4 grams gold per tonne in a zone of anomalous geochemistry 25 metres long. Additional exploration is planned for this area.

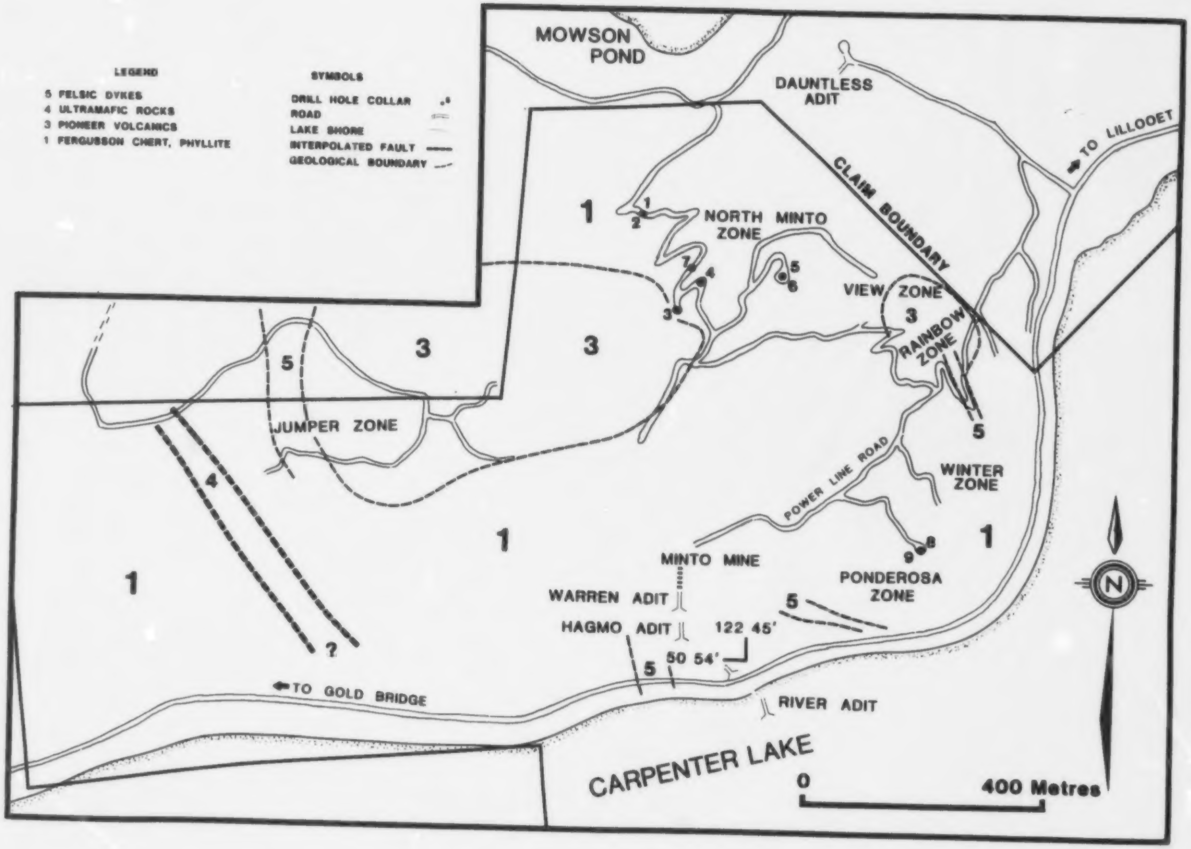

LEGEND
5 FELSIC DYKES
4 ULTRAMAFIC ROCKS
3 PIONEER VOLCANICS
1 FERGUSSON CHERT, PHYLLITE
SYMBOLS
DRILL HOLE COLLAR
ROAD
LAKE SHORE
INTERPOLATED FAULT
GEOLOGICAL BOUNDARY
MOWSON POND
DAUNTLESS ADIT
TO LILLOOET
CLAIM BOUNDARY
NORTH MINTO ZONE
VIEW ZONE
RAINBOW ZONE
JUMPER ZONE
POWER LINE ROAD
WINTER ZONE
PONDEROSA ZONE
MINTO MINE
WARREN ADIT
HAGMO ADIT
122 45'
50 54'
TO GOLD BRIDGE
RIVER ADIT
CARPENTER LAKE
0
400 Metres
N

Figure B-16-6. Geology and workings on the Minto property.

OLYMPIC (92JNE092, 107, 129, 130)

LOCATION:	Lat. 50°53′30″	Long. 122°44′30″	92J/15W
	On the south shore of Carpenter Lake, immediately east of Girl Creek.		
CLAIMS:	OMEGA, OMEGA 1-2, OMEGA 4, JACK FR., ALPHA FR., GOLDEN GIRL, MINTO FR. ALPHA 1-2, ALTA 1-8, ALTA 1-2 FR., HILLSIDE 1-8, HILLSIDE EXT. 3-4 JHANTA FR., MELLISANDE.		
ACCESS:	By gravel road along the south shore of Carpenter Lake, 7.8 kilometres northeast of Gold Bridge.		
OWNER/OPERATOR:	AVINO MINES AND RESOURCES LTD.		
COMMODITIES:	Gold.		

The Olympic property comprises several widely separated mineral prospects including the Kelvin-Alma, Billyo-Manners, No. 1, and Leckie-Magee zones, of which the latter is most important (Friesen, 1988). The claims are underlain mainly by the sheared and schistose Fergusson assemblage (units 1a, 1b) of cherts, phyllites, marble bands and metavolcanic rocks. A fault-bounded wedge of Pioneer pillow lava is best exposed on the northwest part of the property. There is a central belt of ultramafic rocks, basic intrusions and felsic dykes (Figure B-16-7). These intrusions were emplaced on sets of southeasterly trending fractures ranging from 107°/66° northeast to 126°/80° southwest. This general direction together with cross-fractures at 022°/60° northwest are the main trends of vein mineralization.

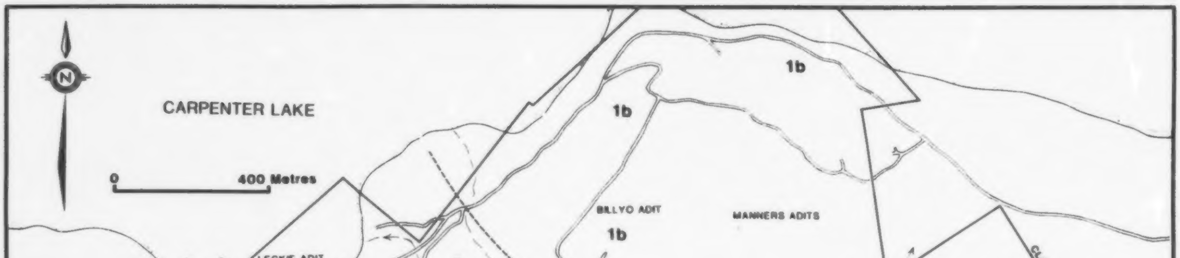

N
CARPENTER LAKE
0
400 Metres
LECKIE ADIT
MAGEE ADIT
TO GOLD BRIDGE
ALMA ADIT
KELVIN ADIT
BILLYO ADIT
MANNERS ADITS
OLYMPIC CAMP
No. 1 ADIT
MARQUIS CREEK
GIRL CREEK
CLAIM BOUNDARY
1a
1b
1
2
3
3?
4
5
?
122 43'
50 53'
LEGEND
5 FELSIC DYKES
4 ULTRAMAFIC, BASIC ROCKS
3 PIONEER VOLCANICS
2 BRALORNE INTRUSIONS
1b FERGUSSON? 'BROWN GREENSTONE'
1a FERGUSSON CHERT, PHYLLITE
SYMBOLS
DRILL HOLE COLLAR
ROAD
LAKE SHORE
INTERPOLATED FAULT
GEOLOGICAL BOUNDARY

Figure B-16-7. Geology and workings on the Olympic property.

The Leckie adit, now collapsed and below the shore line of Carpenter Lake, followed veins in the southeasterly trending 'Minto belt' of ultramafic and basic intrusions and felsic dykes. The mineralization encountered in the Leckie and Magee adits consisted of gold and silver-bearing quartz-carbonate veins with concentrations of arsenopyrite, sphalerite, pyrite and accessory chalcopyrite, galena and tetrahedrite.

The Kelvin and Alma adits, located to the west between the Leckie-Magee prospect and Girl Creek are exploration tunnels driven on small southwesterly dipping suphide-bearing quartz-carbonate veins in Pioneer pillow lavas.

The Billyo-Manner prospect, approximately 600 metres to the east and 250 metres above Leckie, is underlain by fine-grained brown-weathering greenstone, which appears to be a basic volcanic phase of the Fergusson Group. The mineralization consists of lenses and stringers of pyrite, pyrrhotite, chalcopyrite and magnetite. Precious metal values are low.

The No. 1 adit is 1.2 kilometres east of Leckie and about 300 metres higher in elevation. The adit explores quartz-carbonate veins containing some coarse stibnite and fine-grained arsenopyrite. The veins are associated with shearing in Fergusson chert and greenstone.

RELIANCE (92JNE033, 136)

LOCATION:	Lat. 50°52′ Long. 122°47′ 92J/15W The property is south of Carpenter Lake, opposite the mouth of Gun Creek.
CLAIMS:	Reverted Crown-granted claims and fractions NEMO 1-8 (Lots 7651-7658), NEMO FR. (Lot 7503), OMEN 1-8 (Lots 7659-7496), EROS 2 (Lot 7498), EROS FR. (Lot 7499), and NOVA FR. (Lot 7497).
ACCESS:	By gravel raod along the south shore of Carpenter Lake, 5 kilometres northeast of Gold Bridge.
OWNER/OPERATOR:	MENIKA MINING CO. LTD.
COMMODITIES:	Gold, silver, antimony.

Current exploration on the Reliance property is near the old Senator adit on the western part of the claim group. The geology is similar to the Congress property to the north. There is a faulted central panel of Pioneer greenstone, including pillow lava, which is flanked to the east and west by Fergusson chert and phyllite (Hanna *et al.*, 1988). The mineralization consists mostly of pyrite and stibnite with gold values in quartz-carbonate veins. Many of the veins follow the cross fractures (036°/54° northwest), developed at intervals on a 70-metre section of the Senator - Imperial southeasterly striking shear. A total of 21 test holes were drilled in this area in 1988 with some intersections yielding gold grades to 15 grams per tonne. Parallel shear zones to the east require some additional examination.

ACKNOWLEDGMENTS

Assistance rendered by the mining community of Bralorne and Gold Bridge is gratefully acknowledged. Special thanks are owing Paul Johannes and James Miller Tait of Levon Resources Ltd., Sandra McAllister of Chevron Canada Resources Ltd., Peter Friesen (consultant), Chris Sampson (consultant), William Atkinson and Bob Holt of Caribou Chilcotin Helicopters Ltd. and Bralorne residents Helen Klassen and Carol and Frank Bethune.

Field assistance has been provided by Aaron Pettipas, Robert Gaba and Kim Safton.

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MOSS-MAT STREAM SAMPLING IN THE BRIDGE RIVER MINING CAMP (92J15 and parts of 92J10, 16)

(Fig. B1, No. 17)

By B.N. Church

INTRODUCTION

Moss-mat sampling is a valid prospecting tool providing a ready means of obtaining geochemical data on stream sediments (Matysek and Day, 1988). It has been shown that moss is an effective collector of silts and concentrator of heavy minerals which can be used to trace the source of base metals and gold.

Moss samples were collected from tributary streams throughout the Bridge River mining camp in the summer of 1988 during a program of regional mapping. A total of 112 samples were obtained from road and trail access and helicopter-supported overland traverses (Figure B-17-1).

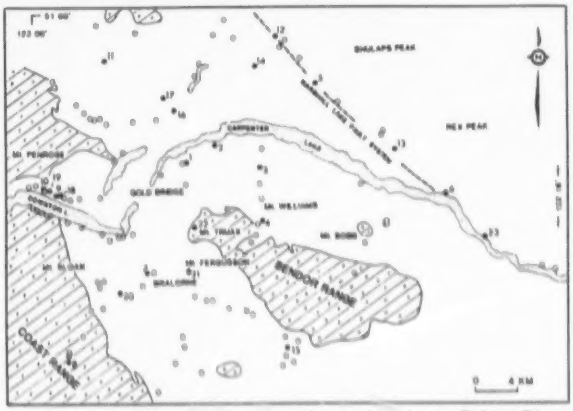

Figure B-17-1. Moss-mat sampling stations in the Bridge River mining camp, solid circles indicate anomalous results (keyed to text).

GEOLOGY AND MINERALIZATION

The Bridge River mining camp comprises an area of about 1500 square kilometres, between the Coast Range batholith west of the towns of Gold Bridge and Bralorne, and the Shulaps ultrabasic body to the northeast. The camp is underlain mainly by the Bridge River complex which consists of underplated metamorphosed oceanic rocks (Paleozoic to early Mesozoic) and less deformed clastics and volcanics of the Cadwallader Group (Upper Triassic). Younger Mesozoic and Tertiary sedimentary and volcanic rocks occur as scattered down-faulted blocks in this older terrain, especially in the northern part of the area.

The camp is known mainly for gold production from quartz veins and small ancillary production of lead, zinc, antimony, mercury and tungsten. Chromium, nickel and platinum have been found but not in commercial quantities.

An extensive fissure system in the camp provided abundant channelways for vein-forming solutions. According to Woodsworth *et al.* (1977), the Coast granitic intrusions served as the heat and water source and possible origin of the metals. This idea is supported by a broad zonation of deposits outward from the Coast plutons. Close to the plutons the quartz veins are mesothermal types locally enriched with arsenopyrite and a small amount of chalcopyrite and scheelite (for example, the Bralorne mine). More distally the veins are mixed mesothermal and epithermal types and locally polymetallic with abundant pyrite, stibnite, sphalerite and galena (for example, the Minto mine). Cinnabar prospects occur along the relatively 'cool' northeast fringes of the camp (for example the Silver Quick mine).

PROCEDURE

Moss-mat samples were collected from boulders and logs in stream beds and banks below the high-water level. Care was taken to avoid drainage culverts and discarded metallic junk which is commonly scattered near villages and old mine sites. The samples weighing up to 1 kilogram were placed in kraft paper bags and air dried prior to shipping to the ACME laboratory in Vancouver.

The laboratory procedure required first removal of the dried organic material and then sieving the residual sand and silt to -80 mesh. A 0.5-gram portion of each sample was digested in aqua regia and the elements were determined by ICP-ES and FA-MS methods. This treatment was for extractable metal only; neither the oxides nor silcate minerals were completely digested. Gold was determined by graphite furnace atomic absorption following digestion of a 10-gram split with aqua regia and extraction with methyl-isobutyl ketone.

RESULTS

The results of analyses are listed in Table B-17-1. The rounding of the reported values and detection limit cut off precludes detailed statistical evaluation of the results in most cases, nevertheless, the information is useful because anomalously high values (i.e. greater than plus one standard deviation) are generally easy to spot. Log probability plots for pathfinder elements such as lead and zinc, and to a lesser extent arsenic and antimony, show more or less straight-line relationships between cumulative frequency and analytical values indicating log normal distribution (Figure B-17-2), suggesting a common source for these metals - possibly quartz veins cutting a wide variety of country rocks.

The gold results are most important because there are few viable prospects in the area that do not carry gold. Samples with gold values above 100 ppb (arbitrary threshold) are listed in Table B-17-1 together with other anomalous elements. From this it appears that gold was derived from at least three sources; (1) polymetallic veins with ancillary lead, antimony, zinc, arsenic and iron, suggesting the presence of galena, stibnite, sphalerite, arsenopyrite and pyrite (Samples 1, 2, 3, 4, 8 and 11); (2) veins in ultrabasic rocks with anomalous levels of nickel and chromium (Samples 5, 9, 12 and 13); (3) veins with little or no accompanying sulphide mineralization hosted by common igneous or metamorphic country rocks (Samples 6, 10, 14 and 15).

TARGETS FOR EXPLORATION

The location of anomalous gold and base metal samples is shown on Figure B-17-1. The highest gold analyses, 1103 and 1347 ppb from samples 9 and 10 respectively, were obtained from moss-mats in adjacent subparallel streams on the south-facing slope of Mount Penrose, below the contact of the Coast Range batholith with Triassic rocks. Three other samples (18, 19 and 20) from the same general area of Mount Penrose contain anomalous copper, zinc and iron. Four other samples with anomalous gold values (Samples 5, 6, 12, and 13) are aligned and approximately coincident with the Marshall Lake fault between the west branch of Liza Creek and Jones Creek, suggesting a relationship of the fault to mineralization.

A platinum anomaly occurs on Pearson Creek (Sample 16) associated with relatively high nickel, chromium and iron values in the moss-mat, suggesting ultrabasic rocks subcrop in the drainage area. A second sample (17) from a point higher on the same creek confirms the nickel, chromium and iron values.

Finally, two samples (21 and 22) are anomalous in molybdenum, copper, lead and zinc, suggesting possible porphyry mineralization on Mount Fergusson, related to the Bendor granitic stock, and in the Mission Ridge area, related to the Mission Ridge porphyry intrusion.

CONCLUSIONS

Sampling moss-mats in the Bridge River area suggests several targets for exploration. For example fault zones, such as the Marshall Lake fault lineament, and igneous contact zones, such as the margin of the Coast Range batholith in the Downton Lake - Mount Penrose area, appear to be favourable areas for gold and base metal mineralization. There is also some

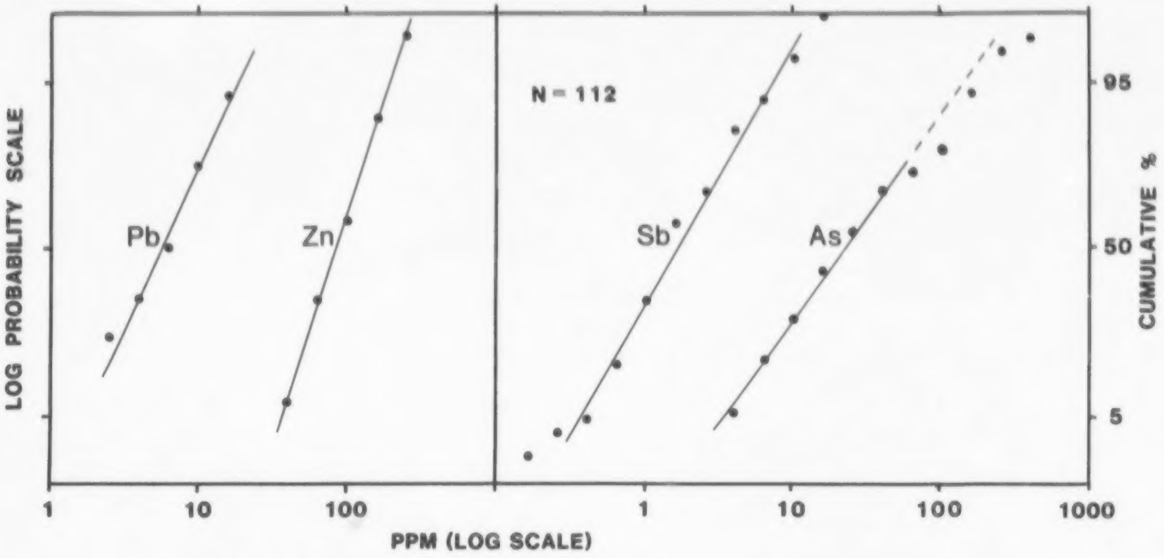

Figure B-17-2. Cumulative frequency distribution for pathfinder elements (straight line assumes log normality).

TABLE B-17-1. MOSS-MAT SAMPLES WITH ANOMALOUS PRECIOUS METAL AND BASE METAL RESULTS

Fig 1	UTM		Source	Elements												
No.	Easting	Northing	Projection (Veins?)	Ag ppm	As ppm	Au ppb	Cr ppm	Cu ppm	Fe %	Mn ppm	Mo ppm	Ni ppm	Pb ppm	Pt ppb	Sb ppm	Zn ppm
1	5147	56356	pmv			212							13		10.3	
2	4173	56373	pmv	0.4	140	164				1474			24		13.2	147
3	5220	56349	pmv	0.3		592				1254			18		9.3	
4	5219	56296	pmv	0.3	458	137			5.95				20		14.4	165
5	5274	56432	ultrabasic			204	363					477				
6	5395	56323	gqv			592				1097						
7	5108	56251	gqv	0.3		913										
8	5028	56167	pmv	0.3		245							21			173
9	5018	56324	ultrabasic		104	1103			6.13			322				
10	5006	56329	gqv	0.4		1347			6.08	994					7.2	
11	5067	56455	pmv			133										
12	5235	56475	ultrabasic			225						777				
13	5350	56368	ultrabasic			105	361									
14	5223	56424	gqv	1.1		165										
15	5242	56178	gqv			274										
16	5132	56402	ultrabasic				493		6.47			1085		41		143
17	5122	56413	ultrabasic				498	82	5.94			973				
18	5023	56323	igneous contact	237			111	6.87							229	
19	5011	56329	igneous contact				121	11.55				17			230	
20	5079	56230	igneous contact				94	6.58							213	
21	5146	56251	porphyry		152			129	6.78	2869	11		13		6.6	
22	5153	56294	porphyy		180			97	6.84		10		19		22.9	
23	5442	56268	pophyry					130			11		15			169
Threshold (plus one standard deviation):				0.3	100	100	250	80	5.9	950	3	320	12	3	4	140
Detection limit:				0.1	2	1	−8	<10	<0.3	<300	1	−6	2	1	0.2	<30

PMV - polymetallic veins
GQV - gold quartz veins

evidence of precious metals in association with ultrabasic rocks and related shear zones.

ACKNOWLEGMENTS

Assistance rendered by the mining exploration community in the Bridge River area is gratefully achnowledged. ACME Laboratories of Vancouver supplied rapid analytical results to field crews.

Special appreciation is owing Aaron Pettipas, Robert Gaba and Kim Safton who assisted in collecting the samples in the field and to Paul Matysek who suggested the program.

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SPUD VALLEY (92L211)

(Fig. B1, No. 18)

By Shielagh N. Pfuetzenreuter

LOCATION:	Lat. 50°02′	Long. 126°50′	92L/2W
	ALBERNI MINING DIVISION. Northwestern Vancouver Island near Zeballos.		
CLAIMS:	SPUD VALLEY.		
ACCESS:	Access is by gravel roads, approximately 10.5 kilometres east of the town of Zeballos.		
OWNER/OPERATOR:	MCADAM RESOURCES INCORPORATED.		
COMMODITIES:	Gold, silver.		

EXPLORATION HISTORY

The original claim, the Goldfield, was staked in 1935 by Sam Knutsen. Other claims were staked later and referred to as the Goldfield group. This was the first property in the Zeballos district to be well financed and prospected. Three veins were discovered, the Goldfield, Spur and Roper. By 1939, 5550 metres of drifting, raising and crosscutting had been completed with the main effort on the Goldfield vein. The property was mined from 1938 to 1942 producing about 1680 kilograms of gold and 575 kilograms of silver from 170 000 tonnes of ore.

Published literature thereafter is sketchy until McAdam Resources Incorporated acquired the property in 1985. Over the next three years four new zones with very promising gold values were discovered: the A vein which yielded an intersection of 83.30 grams per tonne over 1.2 metres; the Linton vein with grades ranging from 4.18 to 18.85 grams per tonne over 1.2 metres; the Linton North vein with grades averaging 14.3 grams per tonne over 1.2 metres, and the A.T. vein which carries grades averaging 3.8 grams per tonne over 0.8 metre.

RECENT ACTIVITY

Published reserves for Spud Valley are 225 000 tonnes grading 14.09 grams per tonne gold. Exploratory drifting and raising has been continuing on the Linton North, Goldfield and Spur veins with promising results. A formerly inaccessable segment of the Goldfield vein has been opened up on the No. 7 level. The Spur vein on the same level is a strong structure with some sections of ore-grade material averaging 8.4 grams per tonne gold over 1.2 metres. In 1988, the No. 8 level, approximately 60 metres below the No. 7 level, was started to access and test the downdip extentions of the Linton North, Goldfield and Spur veins, as well as the A vein.

REGIONAL GEOLOGY

The regional geology of the Zeballos gold camp is shown in Figure B-18-1. Upper Triassic Karmutsen Formation volcanics and Quatsino Formation limestone outcrop along Nomash River northeast of Zeballos in a tightly folded sequence. The Zeballos stock, a large mass of Eocene quartz diorite related to the Catface intrusions, forms a northwest-trending nose near Zeballos River. Jurassic Island Intrusions also cut the Triassic rocks both west of Zeballos River and on the east flank of the Zeballos stock. To the southwest, the Zeballos stock has intruded a panel of Lower Jurassic Bonanza Group basaltic to rhyolitic flows and tuffs. These rocks strike northwest and dip southwest, and may be the southwest limb of an anticline disrupted by the Zeballos stock.

Deformation in the area has produced faults and fractures trending north, northeast and east. North-trending faults and fractures are related to the pre-Tertiary Hecate Channel fault which continues, interrupted and offset by the Zeballos stock, as the North Zeballos River fault, Figure B-18-2 (Hansen and Sinclair, 1984).

PROPERTY GEOLOGY

The Spud Valley property covers the southwest contact of the stock extending onto the Bonanza Group volcanics. The stock is comprised almost entirely of quartz diorite the Bonanza Group volcanics consist of andesite tuffs. The only other rock type consists of dark grey feldspar porphyry dykes. The Goldfield vein follows a well-defined shear zone in the quartz diorite, striking 050 to 062 degrees and dipping 75 to 85 degrees northwest. It pinches and swells considerably, ranging in width from a thin gouge zone to 40 centimetres. The shear zone passes along strike into a sheeted zone that consists of quartz-filled joints.

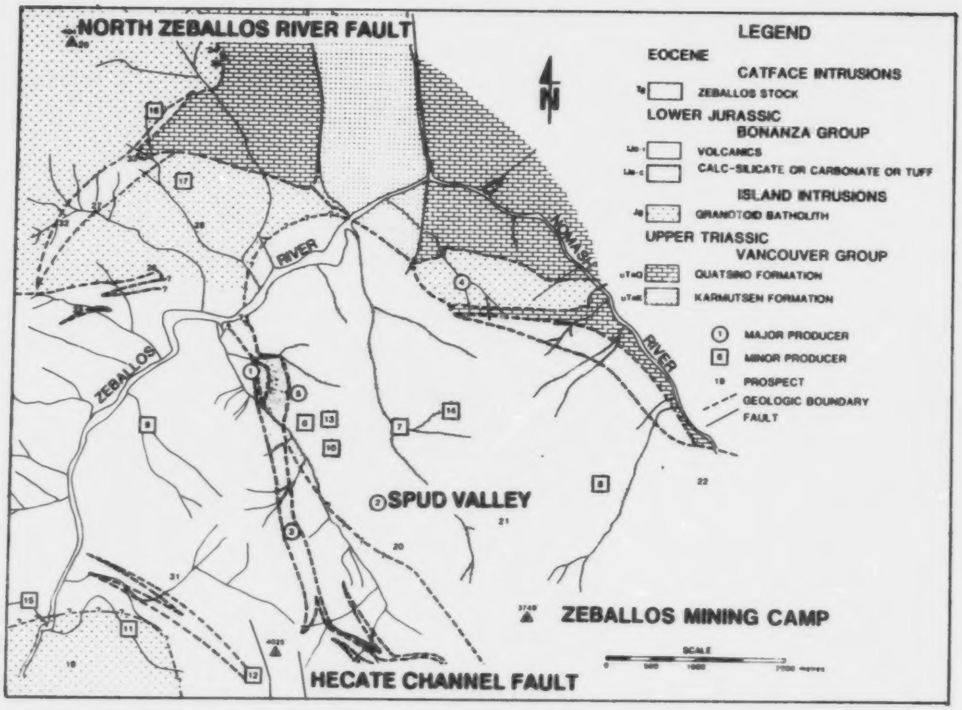
NORTH ZEBALLOS RIVER FAULT
LEGEND
EOCENE
CATFACE INTRUSIONS
Tg ZEBALLOS STOCK
LOWER JURASSIC
BONANZA GROUP
VOLCANICS
CALC-SILICATE OR CARBONATE OR TUFF
ISLAND INTRUSIONS
Jg GRANITOID BATHOLITH
UPPER TRIASSIC
VANCOUVER GROUP
uTrQ QUATSINO FORMATION
uTrK KARMUTSEN FORMATION
MAJOR PRODUCER
MINOR PRODUCER
PROSPECT
GEOLOGIC BOUNDARY
FAULT
RIVER
ZEBALLOS
NOMASH
RIVER
SPUD VALLEY
ZEBALLOS MINING CAMP
SCALE
HECATE CHANNEL FAULT

Figure B-18-1. Regional geology of the Zeballos mining camp, (modified after Sinclair and Hansen, 1984).

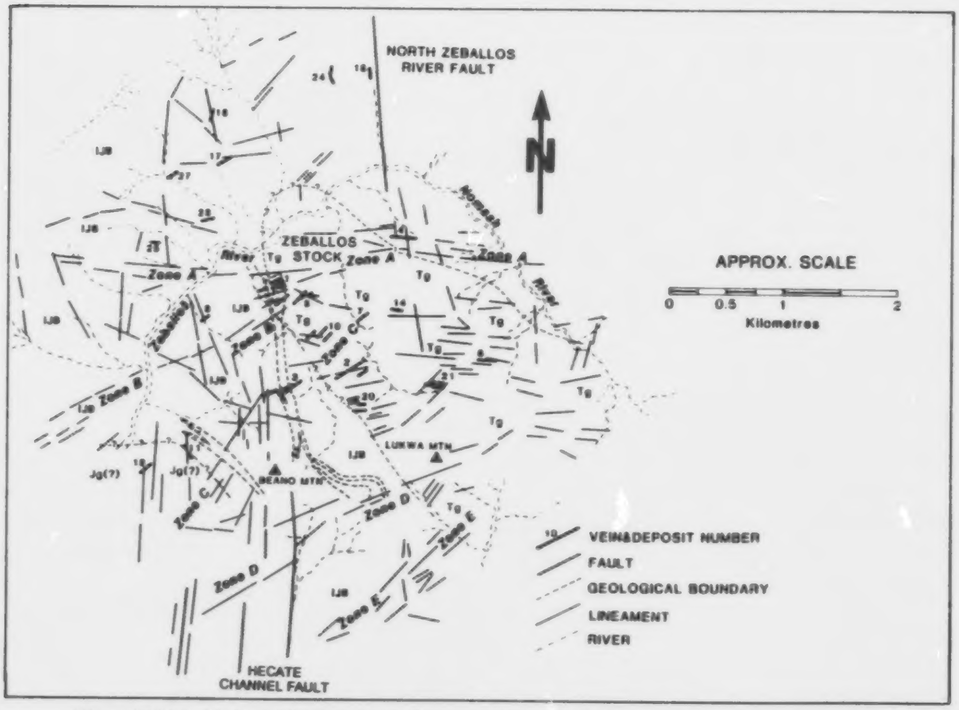
NORTH ZEBALLOS RIVER FAULT
ZEBALLOS STOCK
Zone A
Zone B
Zone C
Zone D
Zone E
Tg
lJB
Jg(?)
LUKWA MTN
BEANO MTN
Nomash
River
Zeballos
APPROX. SCALE
0
0.5
1
2
Kilometres
VEIN&DEPOSIT NUMBER
FAULT
GEOLOGICAL BOUNDARY
LINEAMENT
RIVER
HECATE CHANNEL FAULT

Figure B-18-2. Fault and fracture trace diagram as interpreted from aerial photographs (modified after Hansen and Sinclair, 1984). Scale is approximate as aerial photographs were used as a base.

Vertical quartz-filled tension fractures with an easterly strike cut diagonally across the main vein shear zone. Their more easterly strike and steeper dip indicate that the hangingwall of the main vein shear moved northeasterly and downwards with respect to the footwall, and that the vein therefore represents a normal fault (Stevenson, 1950).

The Spur Vein strikes 070 degrees and dips steeply northwest. It branches from the footwall of the Goldfield vein and is somewhat narrower, however the structure and texture are similar. The A.T. vein is a more complex zone with several stages of fracturing and at least two stages of clay alteration.

MINERALIZATION

The deposit is a Tertiary mesothermal vein deposit consisting of several precious metal bearing quartz veins. Those offering the best potential seem to be within 1000 metres of intrusive bodies greater than 2000 metres in diameter (Sinclair and Hansen, 1984).

Most of the vein quartz is massive and ribboned, but sometimes consists of loosely aggregated comb crystals. Mineralization consists of pyrite, arsenopyrite, chalcopyrite, sphalerite, galena and some native gold. The sulphides comprise up to 50 per cent of the vein and are usually found infilling spaces or as thin stringers within the quartz veins. Argillic and sericitic alteration fringe the veins. Faulting near the vein, seen in the No. 7 level has produced intense movement along the shear zone, slicing the quartz into disconnected lenses. In some places crushing has reduced the quartz to sugary masses and the sulphides to a black powdery texture.

WORK DONE

1988: Underground diamond drilling, 5400 metres; underground drifting. The Spud Valley ocurrence is currently in the Mine Development Review Process and full production is proposed for late 1989.

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NOTES

BONAPARTE RIVER 92P

GOLD HILL

(Fig. B1, No. 19)

By W.A. Taylor

LOCATION:	Lat. 51°25′ Long. 12°06′ 92P/8E KAMLOOPS MINING DIVISION. 90 kilometres north of Kamloops and approximately 25 kilometres north of Barriere. Elevations on the property range from 425 metres at Dunn Lake to the east, to 1000 metres on the southwest flank of Gold Hill. The lowest of the old workings is at 800 metres elevation on the southeast flank.
CLAIMS:	DIXIE, DIXIE 2-5.
ACCESS:	Approximately 30 kilometres by all-weather gravel road north from Barriere, thence along north side of Dunn Creek and up a steep switchbacked road to the lower workings, using a four-wheel-drive vehicle.
OWNER/OPERATOR:	MINNOVA INC.
COMMODITIES:	God, lead, copper, zinc, silver.

HISTORY

The Gold Hill property, discovered during the First World War, has had no production although the 1929 Minister of Mines report stated that "individual grains of gold were seen as large as pinheads and a few the size of small peas".

Prior to 1930, a total of 300 metres of drifting and crosscutting were completed, mainly in the form of short adits along the steep hillside, in an attempt to delineate two fault-controlled vein structures identified in 1923. Much of the work was done by the Granby Mining and Smelting Company which also undertook a diamond-drilling program. From this time up until the mid-1980s the property has undergone relatively few investigations (Addie, 1972; Vollo, 1984).

CURRENT WORK

In late 1986 Corporation Falconbridge Copper (Minnova Inc.) acquired the property. Subsequent work has included the construction of a road leading to the lowest workings and various exploration surveys including VLF-EM and induced polarization surveys, geological mapping, resampling of old adits and a 1988 diamond-drilling program that totalled 1050 metres.

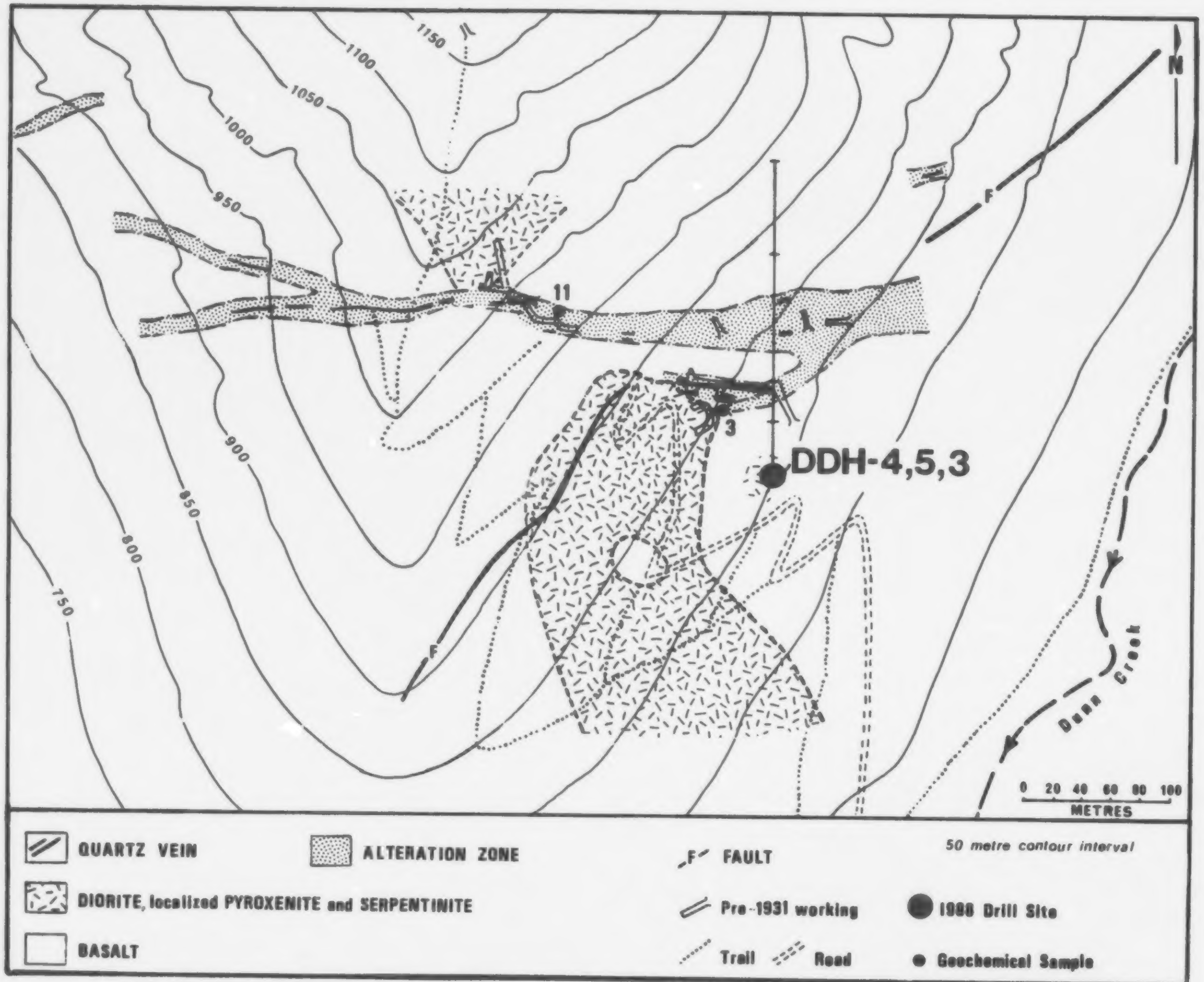
GEOLOGICAL SETTING

The geological setting of the Gold Hill property is illustrated in Figure B-19-1. The prospect lies within overturned pillowed and massive metabasalts and andesitic tuffs of the upper Fennell Formation approximately 2 kilometres west of the lower Fennell contact (Schiarizza and Preto, 1987). The Windpass and Sweet Home mines are located 3 kilometres to the north. The Fennell rocks on the property are mainly basaltic in composition varying from pillowed and variolitic amygdaloidal flows to pyroclastic rocks and flow breccias. Two bodies of mafic diorite, up to 150 metres wide, occur north and south of the mineralized zone. They contain localized zones of serpentinized pyroxenite. Elsewhere on the property scattered outcrops of chert and limestone are also a part of the lower Fennell assemblage. Subvertical east-striking faults with associated mineralization are the most prominent structures. Underground mapping and sampling by Minnova Inc. has revealed weakly mineralized, northeast to east-northeast fractures that cut the strongly mineralized vein system (Evans, 1987; Adamson, 1987).

MINERALIZATION

Fennell basalts host gold-bearing mineralization in a sheared and faulted zone that generally strikes east for 500 metres and contains vein systems 40 metres apart. A third zone occurs at a higher elevation and is known as the Ridge Group. This zone contains galena, chalcopyrite and pyrite mineralization in a vuggy textured quartz vein (Addie, 1972). The main veins average 40 centimetres in width, but locally attain widths of 1.3 metres (Adamson, 1987). Sulphide minerals occur in quartz veins, veinlets and stringers and include disseminated galena, chalcopyrite, pyrite, sphalerite and arsenopyrite. Other metallic minerals include malachite, azurite and limonite. Visible gold is scattered throughout the veinlets and associated with galena (Minister of Mines Annual Report, 1929).

More recent sampling has not outlined any ore grade sections. One of the better adit samples taken in 1987 assayed 4 grams gold and 14.7 grams silver per



1150
1100
1050
1000
950
900
850
800
750
N
F
F
11
3
DDH-4,5,3
Dean Creek
0 20 40 60 80 100
METRES
QUARTZ VEIN
ALTERATION ZONE
DIORITE, localized PYROXENITE and SERPENTINITE
BASALT
F FAULT
Pre-1931 working
Trail
Road
50 metre contour interval
1988 Drill Site
Geochemical Sample

Figure B-19-1. Geology of the Gold Hill Property; topographic contours from the McElhanney Group Ltd. for Vollo, 1984).

TABLE B-19-1. GEOCHEMICAL ANALYSIS OF HOST ROCKS AT GOLD HILL IN PARTS PER MILLION UNLESS INDICATED OTHERWISE (SAMPLES COLLECTED IN 1988)

	Au ppb	Ag	Cu	Pb	Zn	Ni	N	Hg ppb	Sb	Bi
GH 88-03 Altered diorite wallrock with quartz veinlets (No. 5 Adit)	410	1	123	10	149	580	<1	23	3	<4
GH 88-11 Altered basalt/adesite (No. 2 Adit)	2	<.5	56	5	94	12	<1	<10	1	<4
GH 88-12 Diorite (DDH 5)	2	<.5	73	10	98	630	<1	<10	3	4
GH 88-14 Altered basalt (DDH 5)	4	<.5	37	10	109	66	<1	10	3	6
GH 88-15 Basalt (DDH 5)	2	<.5	73	9	89	105	<7	10	7	<4
GH 88-16 Altered basalt (DDH 5)	14	<.5	44	13	86	71	<7	10	2	<4
GH 88-17 Altered basalt (DDH 5)	4	<.5	58	10	66	82	<7	10	1	<4
GH 88-21 Basalt (DDH 3)	2	<.5	67	9	79	64	<7	10	6	<4

tonne. The sample was collected from a 30-centimetre-wide vein that has been traced for 20 metres along strike (Adamson, 1987). Analyses for several metals on samples collected by Geological Survey Branch staff are listed in Table B-19-1.

ALTERATION

Basalt and diorite adjacent to the veins and fault structures are strongly bleached by buff-coloured ferrodolomite alteration. Veinlets and irregular masses of quartz and ankerite ramify through the altered basalts. In places the vein quartz is brecciated and fragments are cemented by ferrodolomite (Minister of Mines Annual Report, 1929). The alteration grades outwards into fresh rock over a distance of 15 metres from the vein walls (S. Lear, project geologist, personal communication, 1988; Evans, 1987).

DISCUSSION

The Gold Hill prospect is a gold-bearing quartz vein occurrence, in the same broad setting as the Windpass property, but with many contrasting features. Both mineralized structures strike west, but the veins at Gold Hill are subvertical rather than subhorizontal. Carbonate alteration is extensively developed in the basaltic wallrocks at Gold Hill: wallrocks at Windpass show little evidence of hydrothermal alteration. At Windpass, mineralization is associated with magnetite replacement lenses and is confined to the diorite body, whereas mineralization at Gold Hill lies chiefly outside the diorite, though adjacent to it, and there is no association with magnetite. Gold is associated with copper mineralization on both properties but at Gold Hill other base metal values are also elevated. Vuggy open-space textures in veins at Gold Hill also suggest greater mobility of the ore fluids and possibly a higher level of formation than at Windpass.

ACKNOWLEDGMENTS

The cooperation of Minnova Inc., in particular Shelley Lear, Project Geologist, for a property and core-shack tour, is much appreciated. Geochemical analyses were provided by the Ministry of Energy, Mines and Petroleum Resources laboratory.

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WINDPASS, SWEET HOME (092P039, 40)

(Fig. B1, No. 20)

By W.A. Taylor

LOCATION:	Lat. 51°26′ Long. 120°05′ 92P/8E KAMLOOPS MINING DIVISION. 100 kilometres north of Kamloops, 30 kilometres north of Barriere and 8 kilometres east of Little Fort on the southwest slope of Baldy Mountain. Elevations range from 1310 metres in the southwest to 1780 metres in the northeast.
CLAIMS:	Mineral Lease M-37R (WINDPASS 1 to 3, Lots 3839 to 3841), Mineral Lease M-38R (SWEET HOME, Lot 3844), Mineral Lease M-40R (GOTT, JUPITER, ELISE, ERIN, DOLLY VARDEN, MAPLE LEAF, BRENDA FR., SIGNE, Lots 3842, 3971, 3972, 3974, to 3978), Mineral Lease M-42R (DYKE FR., DYKE, BEST, DIAMOND, NUGGET, SNOWSHOE FR., SYDNEY X, BOBBY B FR., KAY FR., LOTS 1607, 1615, 1618 to 1621, 3521, 3523, 3524), Mineral Lease M-44R (BLUE DIAMOND, SILVER BELL, PREMIER RIDGEWAY, Lots 1875, 1876, 3973, 4851), Mineral Lease M-45R (FIFTY, FIFTY-ONE, Lots 1873, 1874), Mineral Lease M-46R (NORTH DANN, BELFAST, Lots 3843, 3979, 3980).
ACCESS:	From the northern end of Dunn Lake, by four-wheel-drive vehicle along a one-lane, rough switchbacking road a distance of 12.5 kilometres. Dunn Lake is reached by a two-lane gravel road.
OWNER:	Kamad Silver Co. Ltd.
OPERATOR:	KERR ADDISON MINES LTD.
COMMODITIES:	Gold, copper.

INTRODUCTION

The Windpass and Sweet Home mines were important producers of gold in south-central British Columbia prior to the Second World War. Most of the ore was mined between 1934 and 1940. Total production between 1916 and 1944 was 93 435 tonnes, of which 73 319 tonnes was milled yielding 1071.7 kilograms of gold, 78 906 kilograms of copper and 53.5 kilograms of silver.

The Windpass mine with nine levels, located 900 metres north of the Sweet Home, was the more extensive of the two and shut down early in 1939. The government production figures to 1944 are suspected to be the result of "remilling" of the flotation tailings (Millar, 1980).

Operating data indicate that the millhead grade ran about 24 grams per tonne gold (Smith, 1936). Other reports give values of about 34 grams per tonne gold. The lower value is thought to be the probable average for the two mines (Millar, 1980).

CURRENT WORK

Since closure, the most comprehensive exploration program has been undertaken by Kerr Addison Mines Ltd. During 1987 and 1988, mapping, extensive trenching, geophysical surveys, and over 4000 metres of diamond drilling were completed at a cost in excess of $600 000.

REGIONAL GEOLOGY

The Windpass - Sweet Home property straddles the steeply west-dipping structural contact between overturned upper Fennell pillowed and massive metabasalts and andesitic tuffs and Lower Fennell metasedimentary and metavolcanic layered units (Figure B-20-1). The Fennell Formation has been described as an allochthonous, internally imbricated oceanic assemblage of Devonian to Permian age (Schiarizza and Preto, 1987). Oceanic tholeiites typical of the Slide Mountain terrane are widely distributed in the upper Fennell, with a more heterogeneous mix of cherts and sedimentary rocks present in the lower structural division. Mafic igneous intrusions cut these rocks, and are at least in part Pennsylvanian, Permian and possibly younger, but their lower age limit is unknown.

The Middle Cretaceous Baldy batholith on the eastern edge of the property is a large, coarse-grained biotite quartz monzonite stock which postdates most of the penetrative deformation in the area.

PROPERTY GEOLOGY

A north-trending sill-like body, of hornblende pyroxene diorite separates the upper and lower divisions of the Fennell Formation and is the hostrock for gold mineralization at the Windpass and Sweet

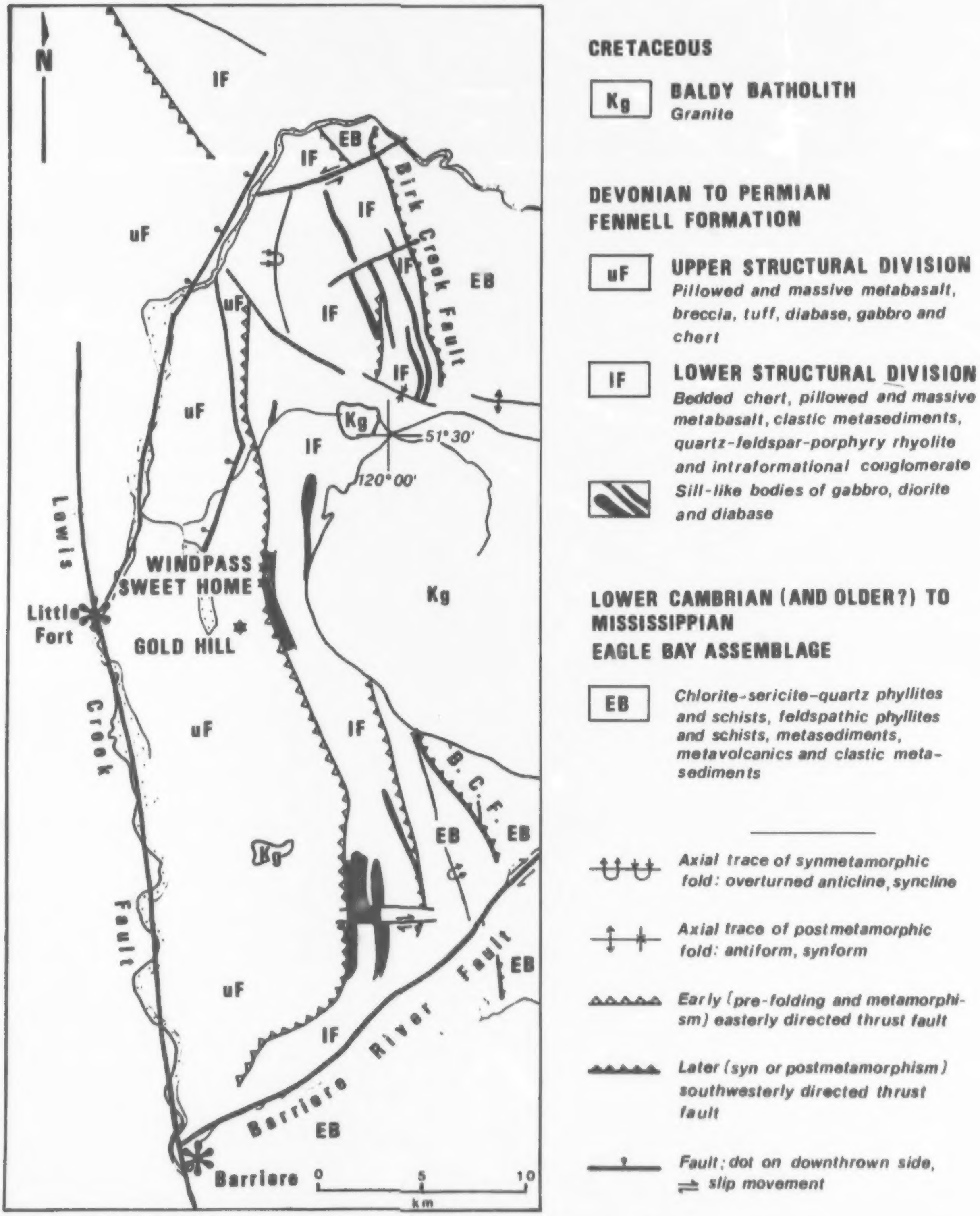

N
IF
uF
EB
Birk Creek Fault
Kg
51° 30'
120° 00'
Lewis Creek Fault
Little Fort
WINDPASS
SWEET HOME
GOLD HILL
B.C.F.
Barriere River Fault
Barriere
0
5
10
km
CRETACEOUS
Kg BALDY BATHOLITH
Granite
DEVONIAN TO PERMIAN
FENNELL FORMATION
uF UPPER STRUCTURAL DIVISION
Pillowed and massive metabasalt, breccia, tuff, diabase, gabbro and chert
IF LOWER STRUCTURAL DIVISION
Bedded chert, pillowed and massive metabasalt, clastic metasediments, quartz-feldspar-porphyry rhyolite and intraformational conglomerate
Sill-like bodies of gabbro, diorite and diabase
LOWER CAMBRIAN (AND OLDER?) TO MISSISSIPPIAN
EAGLE BAY ASSEMBLAGE
EB Chlorite-sericite-quartz phyllites and schists, feldspathic phyllites and schists, metasediments, metavolcanics and clastic metasediments
Axial trace of synmetamorphic fold: overturned anticline, syncline
Axial trace of postmetamorphic fold: antiform, synform
Early (pre-folding and metamorphism) easterly directed thrust fault
Later (syn or postmetamorphism) southwesterly directed thrust fault
Fault; dot on downthrown side, ⇌ slip movement

Figure B-20-1. Regional Geology (simplified from Schiarizza and Preto, 1987).

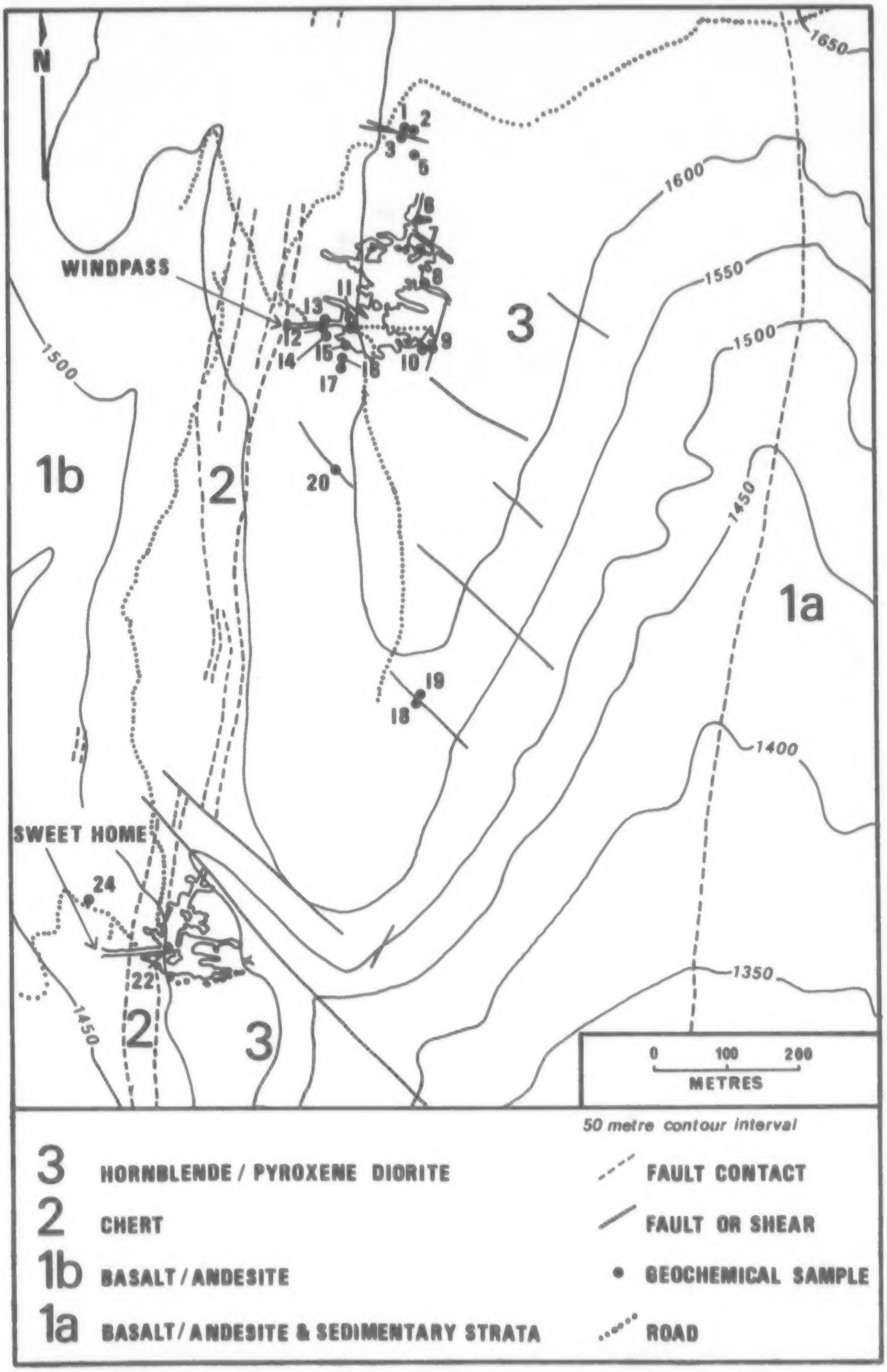

N
WINDPASS
SWEET HOME
1b
2
3
1a
1650
1600
1550
1500
1450
1400
1350
1
2
3
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
22
24
0
100
200
METRES
50 metre contour interval
3 HORNBLENDE / PYROXENE DIORITE
2 CHERT
1b BASALT / ANDESITE
1a BASALT / ANDESITE & SEDIMENTARY STRATA
FAULT CONTACT
FAULT OR SHEAR
GEOCHEMICAL SAMPLE
ROAD

Figure B-20-2. Windpass, Sweet Home property geology with underground workings superimposed.

Home mines (Figure B-20-2). Its apparent thickness is up to 750 metres and it extends for some distance north and south of the Windpass mine. Textural and compositional variations are gradational within the intrusion but do not constitute distinct mappable zones. Most workers have recognized textural features thought to be characteristic of magmatic differentiation, such as myrmekitic and micrographic quartz-feldspar intergrowths (Plate B-20-1) and a widespread variation in abundances of pyroxene and hornblende.

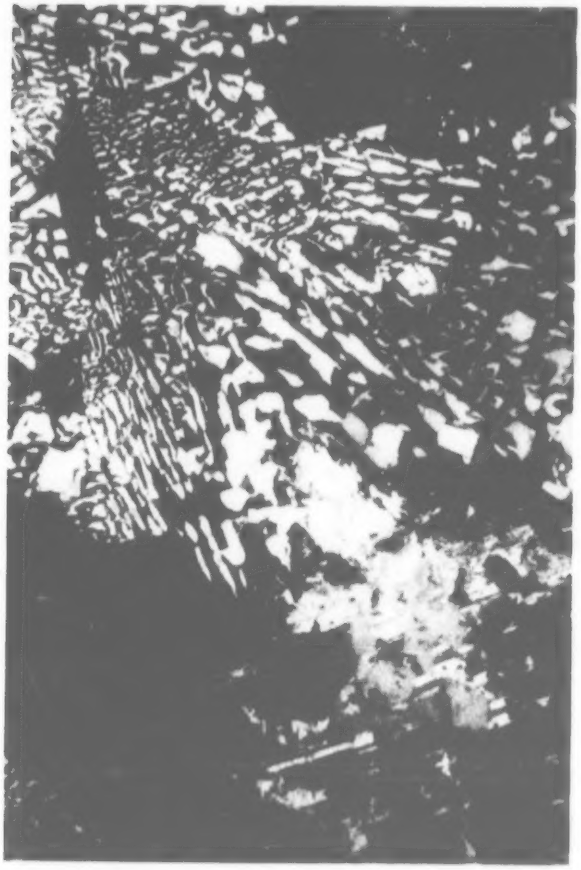


Plate B-20-1. Myrmekitic texture in diorite. Sample WP-88-13 from hangingwall, 1 metre from the Windpass vein. Note the partially exsolved plagioclase crystal in the bottom left corner. (Width of photograph approximately 2.5 millimeters.)

To the west of the diorite is a unit of banded chert up to 50 metres wide and barren of mineralization. West of this are basaltic flows and andesitic tuffs that are also barren of significant mineralization. These rocks, like the diorite, have a chloritic greenschist-facies regional metamorphic overprint.

Contacts are subvertical, generally dip steeply west and appear to be predominantly tectonic.

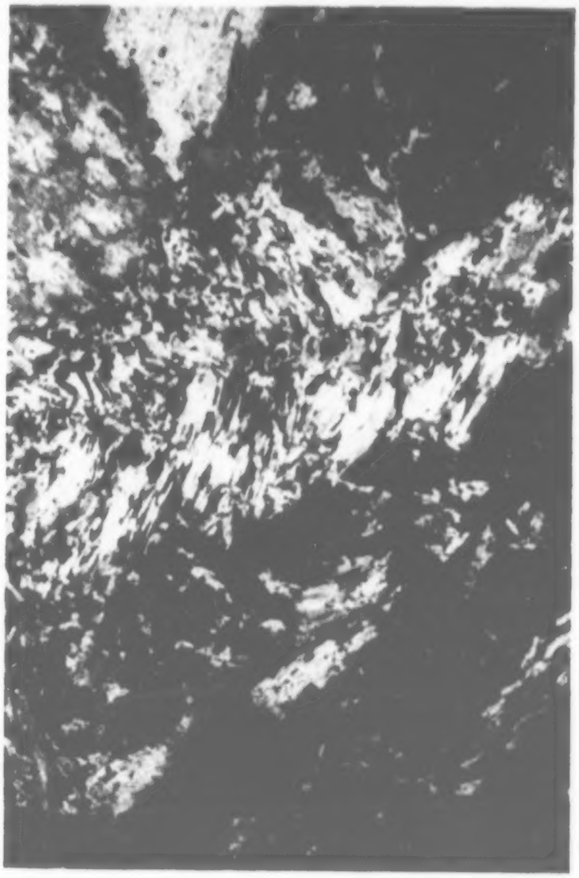
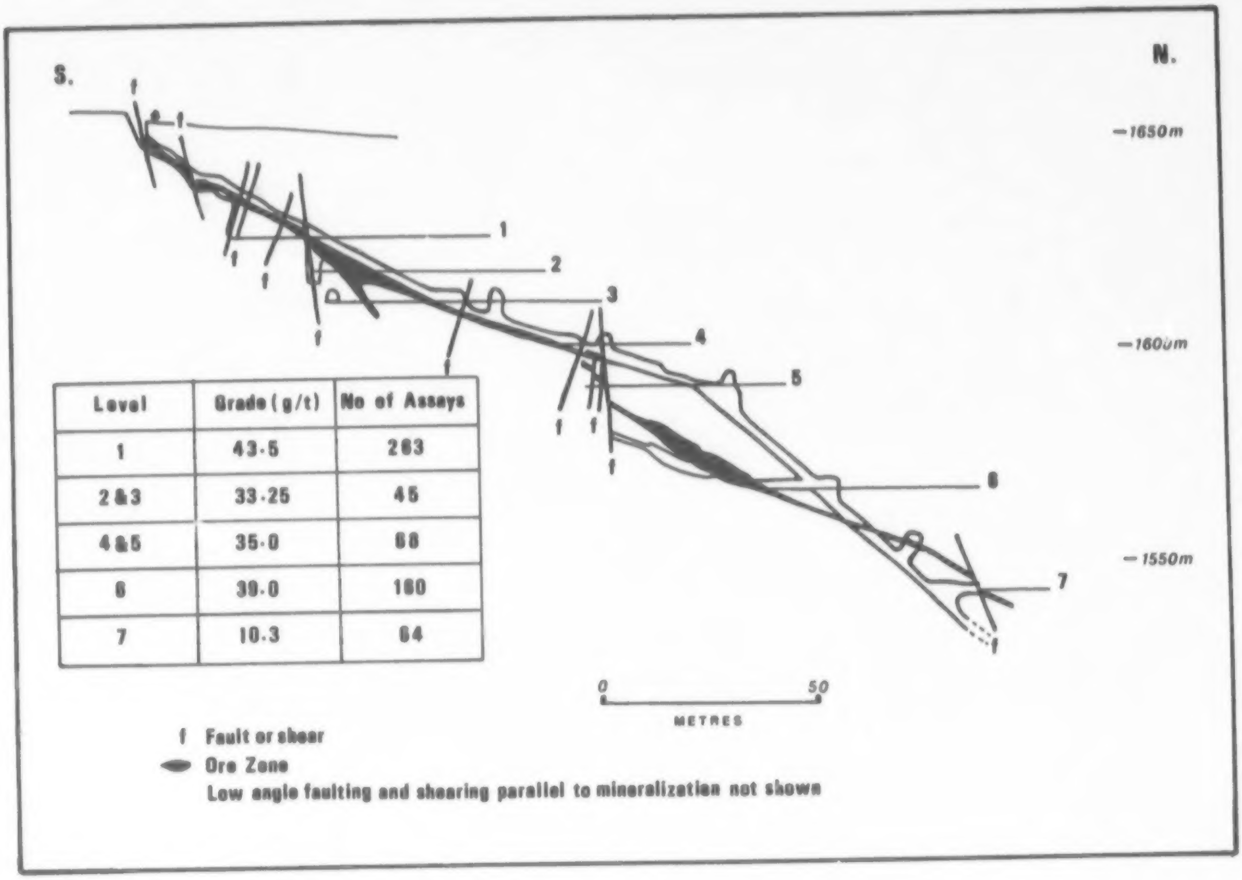


Plate B-20-2. Microshear in diorite. Sample WP-88-22 near the Sweet Home vein. Strained laths of amphibole and granules of quartz are adjacent to feldspar phenocrysts. (Width of photograph approximately 2.5 millimetres.)

STRUCTURE

Field observations indicate a complex structural history. Shearing, faulting and mineralization have been superimposed on a north-northeast-trending regional fabric. Subsequently the mineralization has been cut by west to west-northwest-trending, moderately to steeply dipping faults and shears. Shearing has occurred at all scales, from property-wide faults to micro-shears (Plate B-20-2). Larger structures have displaced the ore bodies in a step-like down-dropped sequence to the north (Figure B-20-3). Some low-angle shears are oriented parallel to veins and pods of quartz-sulphide mineralization. Reactivation of shears parallel to the regional trend is evident where


S.
N.
f
1
2
3
4
5
6
7
—1650m
—1600m
—1550m
0
50
METRES
f Fault or shear
Ore Zone
Low angle faulting and shearing parallel to mineralization not shown

Level	Grade (g/t)	No of Assays
1	43.5	263
2 & 3	33.25	45
4 & 5	35.0	68
6	39.0	160
7	10.3	64

Figure B-20-3. Section of the Windpass main winze looking west. (Assays from stope maps: Elliot, 1936)

north-northeast shears displace earlier, mineralized east-west shears and, in fact, truncate the Windpass system to the east (Figure B-20-2).

Late northwest-trending faults form steep topographic features and displace the Fennell stratigraphy and the orebodies. The eastern end of the Sweet Home system is cut off by one such fault.

Recent magnetometer surveys over the property (Coyle, 1987) have confirmed the existence of strong west-trending anomalies that were previously outlined by geophysical surveys completed in the 1960s and 1970s (Wilmot, 1960; Mark, 1972; Pasieka, 1972). All geophysical anomalies occur within the sill, with the strongest zone centered near the Windpass mine. The anomalies have an en échelon configuration suggesting that major structural displacements may have occurred. During an examination of core drilled in the 1987 program, wide zones of strongly contrasting magnetic susceptibilities were observed along north-dipping, shears. Silicified and mineralized wallrock, having the same structural attitudes, lies adjacent to the contrasting magnetic blocks and sheared faults that bound them. Dips of these structures range from 25 degrees and 35 degrees to the north.

MINERALIZATION

Mineralization at both deposits consists of gold-bearing quartz veins that occur within 2 metres of shear zones. While the veins and shears dip between 10 and 40 degrees north, oreshoots plunge gently in an easterly direction marked by caved mine workings. The veins vary in width from a few centimetres up to 2 metres, with an average width of less than 1 metre.

Metallic minerals associated with the Windpass shear include magnetite, chalcopyrite, pyrrhotite, pyrite, bismuthinite, cobaltite, gold tellurides and native copper, in a quartz gangue. Magnetite is the dominant mineral at Windpass and usually occurs as massive pods or lenses subparallel to adjacent sheared veins. High gold grades and visible gold are associated with this mineral assemblage. Veinlets of magnetite also ramify through the wallrock up to 50 centimetres on either side of the vein.

Minerals associated with the Sweet Home shear include variable but minor amounts of pyrite and chalcopyrite, bismuthinite and tellurides in a quartz gangue. Most gold values are related to high sulphide concentrations and silicification. Old surface workings between the two mines have exposed mineral assemblages similar to that at the Windpass.

LITHOGEOCHEMICAL RESULTS

A total of 21 rock samples were collected and geochemically analysed at the Ministry of Energy, Mines and Petroleum Resources laboratory by atomic absorption. Samples were taken at varying distances from veins or mineralized structures (Figure B-20-2). The samples anomalous in gold also returned anomalous copper values. Copper anomalies are also present some distance from the veins.

OBSERVATIONS AND DISCUSSION

The following observations have been made on the gold mineralization at the Windpass and Sweet Home mines:

* At the Windpass mine, the highest grade ore shoots contain cobaltite in their core (Uglow and Osborne, 1926).
* Bismuth and bismuthinite appear related to the concentration of gold near or in the cobaltite (Uglow and Osborne, 1926).
* Where gold content exceeds 1 gram per tonne, bismuth and tellurium are anomalous (Coyle, 1987).
* In drill core, gold values occur in siliceous, sulphide-rich zones adjacent to zones with relatively high magnetic susceptibility or within massive magnetite lenses (Coyle, 1987 and this study).
* Visible gold has been observed in massive magnetite lenses (author).
* Sheared, chloritic gouge adjacent to magnetite lenses is often enriched in gold (Coyle, 1987 and this study).
* No significant gold enrichment of the diorite wallrock is reported adjacent to veins, shears or faults, thus the potential for bulk tonnage, lowgrade gold mineralization is minimal (Coyle, 1987).
* No halos of enrichment in indicator elements, or discernible alteration zones have been recognized around the two ore zones (Coyle, 1987).
* There is an intimate, exclusive association of the orebody with the dioritic sill. Although adjacent shears cut other units, gold enrichment and related mineralization are restricted to the diorite (Uglow and Osborne, 1926; Coyle, 1987 and this study).
* Carbonate veins observed in drill core appear to be later than the mineralization and unrelated to the distribution of gold (Coyle, 1987 and this study).
* There is a correlation between gold and copper content within the diorite. Copper is more persistent some distance from the veins (this study).

Earlier workers thought that mineralization in the Windpass and Sweet Home deposits was related to the Cretaceous Baldy batholith (Uglow, 1921). This notion was dispelled by Uglow and Osborne (1924) who undertook detailed microscopic work and attempted to outline a paragenetic sequence. A subsequent microscopic study (Haycock, 1934) concluded that the complexities of the deposit rendered any paragenetic interpretation unrealistic.

Gold mineralization at the Windpass is restricted to the diorite sill, which likely has been differentiated to some extent, as suggested by variations in the content of mafic minerals, feldspar and quartz, and by micrographic quartz-feldspar textures. Mineralization is spatially associated with magnetite lenses and contained within north-dipping dilatent zones. The lack of extensive wallrock alteration indicates that hydrothermal solutions associated with gold-quartz deposition did not react with wallrocks or migrate extensively within the diorite. This led to the formation of a small high-grade deposit, rather than the development of a larger tonnage of disseminated mineralization within the diorite body.

A number of similar mafic sills present within the Fennell Formation have the potential to host similar mineral concentrations and are thus excellent exploration targets.

ACKNOWLEDGMENTS

The cooperation of Kerr Addison Mines Ltd., in particular Fred Daley and Les Lyons, who graciously provided access to company files and arranged a property visit, is much appreciated. Richard Meyers, District Geologist, Kamloops supervised the program.

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NOTES

QR (93A040)

(Fig. B1, No. 21)

By E.L. Faulkner

LOCATION:	Lat. 52°40′ Long 121°47′ 93A/12W CARIBOO MINING DIVISION. Approximately 60 kilometres southeast of Quesnel, on the north side of the Quesnel River.
CLAIMS:	QR 1-8 (130 units).
ACCESS:	From Quesnel approximately 75 kilometres via the Sardine Flats and Nyland Lake forest roads.
OWNER/OPERATOR:	QPX MINERALS INC. and PLACER DOME INC. joint venture.
COMMODITY:	Gold.

INTRODUCTION

This report is an update of an earlier report on the property (Faulkner, 1986). Extensive drilling has delimited the Main Zone and West Zone orebodies described in that report and led to the discovery of the Midwest orebody and two other mineralized zones. The property has entered the Mine Development Review Process, with production at a rate of 400 tonnes per day scheduled for late 1990.

HISTORY

The deposit was discovered following staking centred on a small alkalic stock that was identified by its aeromagnetic signature. Systematic till sampling disclosed several multi-element geochemical anomalies with strong down-ice dispersions. Drilling and trenching of one of these anomalies led to the discovery of the Main zone in 1977. The West zone was discovered in 1983, and the Midwest, North and East zones have been discovered since 1986. The geochemical program conducted on this property has been described in some detail by Fox, Cameron and Hoffman, (1987).

GEOLOGICAL SETTING

The deposit occurs in a thick sequence of augite porphyry flows, basaltic breccias, tuffs, lapilli tuffs, argillaceous and calcareous sediments that are part of the northwest-trending Quesnel trough. The rocks are of late Triassic to early Jurassic age and have been ascribed by different authors to either the Takla Group or the equivalent Nicola Group. A number of small alkalic stocks that occur on a strong southeasterly linear trend intrude the volcanic and sedimentary sequences southeast of Quesnel. The QR deposit occurs in propylitically altered rocks that are spatially related to one of these intrusions - the QR stock.

PROPERTY GEOLOGY

The property geology is shown on Figure B-21-1, with details of the mineralized zones shown on Figure B-21-2. There is little outcrop on the property and the geology has been inferred mostly from drill information. Four units have been identified in a volcanic and clastic sequence, but the contacts between these units are gradational, with considerable interfingering of adjacent units. The general strike is easterly, with dips from 30 to 80 degrees south.

The lowermost unit (Unit 1) consists of a thick sequence of greenish, massive to autobrecciated augite porphyry flows with minor interbedded pillow basalts, hornblende porphyry flows and greywackes. Overlying this are carbonate-altered basaltic breccias and basaltic conglomerates (Unit 2). Clasts are carbonatized and cemented with calcite and minor pyrite. This unit varies considerably in thickness to a maximum of 250 metres. Unit 2 grades upward and in places laterally into Unit 3, comprising up to 50 metres of strongly and pervasively carbonate-altered and calcite-cemented tuffs and lapilli tuffs. Pyrite is a major component of the rock, typically ranging from 5 to 20 per cent. The uppermost unit (Unit 4) consists of thinly bedded argillites and siltstones. These are calcareous in places, and may contain up to 10 per cent finely disseminated pyrite.

This sequence is intruded by the QR stock and related hornblende porphyry dykes and sills. The stock varies in composition from an outer zone of diorite to an inner core of monzodiorite and minor syenite. A sharply defined alteration halo extends outward 200 to 300 metres from the stock. In general, the basaltic rocks are strongly propylitized to epidote-pyrite-carbonate rocks, and the siltstone is varingly hornfelsed to a dense micaceous metasediment.

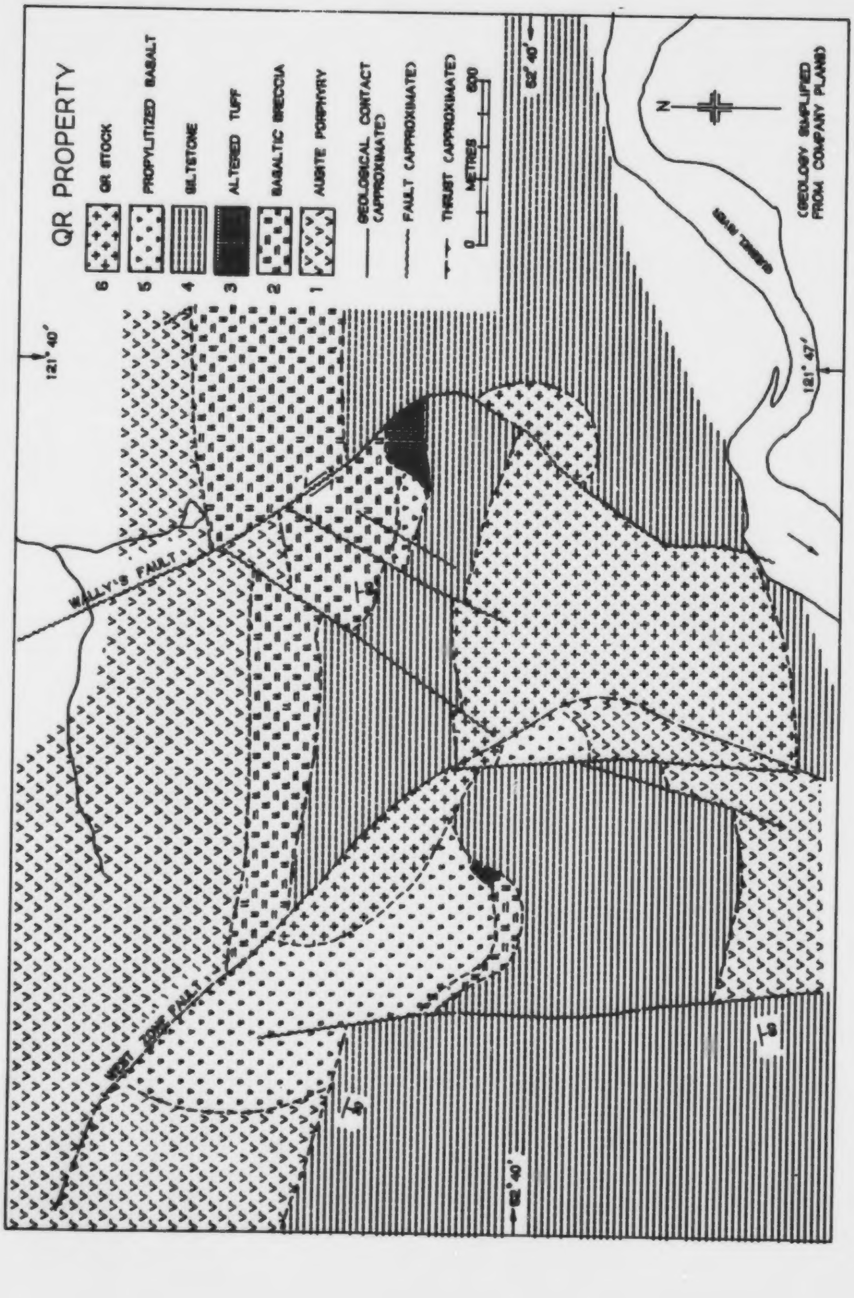
QR PROPERTY
6 QR STOCK
5 PROPYLITIZED BASALT
4 SILTSTONE
3 ALTERED TUFF
2 BASALTIC BRECCIA
1 AUGITE PORPHYRY
GEOLOGICAL CONTACT (APPROXIMATE)
FAULT (APPROXIMATE)
THRUST (APPROXIMATE)
0 METRES 500
N
(GEOLOGY SIMPLIFIED FROM COMPANY PLANS)
QUESNEL RIVER
121° 40'
52° 40'
121° 47'
52° 40'
WALLY'S FAULT
WEST ZONE FAULT

Figure B-21-1. Geology of the QR property.

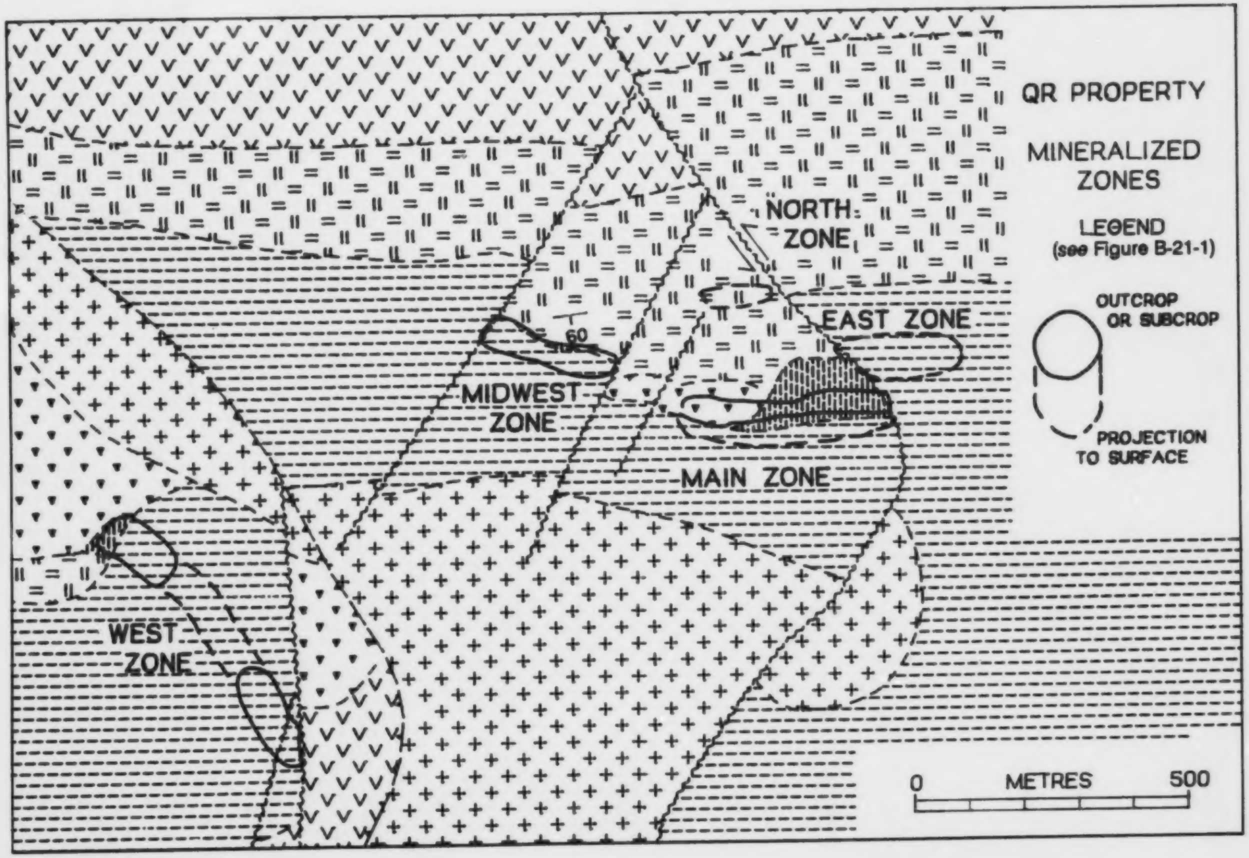
QR PROPERTY
MINERALIZED ZONES
LEGEND (see Figure B-21-1)
OUTCROP OR SUBCROP
PROJECTION TO SURFACE
NORTH ZONE
EAST ZONE
60
MIDWEST ZONE
MAIN ZONE
WEST ZONE
0
METRES
500

Figure B-21-2. QR mineralized zones.

STRUCTURE

Folding on the property appears to be limited to broad open flexures. Two post-ore episodes of faulting are evident. The earlier faulting comprises north to northeast-striking and steep west-dipping normal faults. The later faulting comprises two northwest-striking, shallow southwest-dipping faults that converge at depth. the West Zone fault is a thrust dipping 35 degrees southwest. Wally's fault is a left-hand fault with a thrust component, that dips 20 degrees southwest. Both faults are marked by extensive chlorite gouge zones, with absolute displacements estimated between 250 and 500 metres.

MINERALIZATION

Although anomalous and occasionally low-grade gold values occur throughout the alteration halo and in fracture fillings beyond the halo, the economic mineralization found to date has a strong spatial relationship to both the alteration front and the siltstone-volcanic contact. Most of the ore-grade mineralization occurs within 50 metres of the alteration front.

Gold is associated with pyrite in intensely propylitized volcanic rocks and to a lesser extent with pyrite in the hornfelsed siltstone. Two types of ore are present which are locally mixed and may grade into each other. Stockwork, veinlet and fracture-filling auriferous pyrite occurs in epidote-rich altered basalts. These are shown as Unit 5 on the geological maps, and are the propylitized equivalent of Unit 2. Disseminated to occasionally massive auriferous pyrite occurs in a massive propylite derived largely from the tuffaceous volcanics of Unit 3, and to a lesser extent in the hornfelsed siltstone. This has been included with Unit 3 on the maps. Occurring with the auriferous pyrite are small amounts of chalcopyrite, locally up to 5 per cent, minor pyrrhotite and rare galena, arsenopyrite and visible gold. A strong nugget effect characterizes much of the ore.

The five mineralized zones discovered to date are shown on Figure B-21-2. The Main zone is a steeply plunging tabular body truncated at depth by Wally's fault. The West zone is an elongate tabular body with a slight synclinal shape that subcrops at each end. The centre portion is approximately 50 metres below the surface. The Midwest zone is also tabular, with a moderate westerly plunge. The published ore reserves of these three zones are:

Zone	Grade g/t	Tonnes	Cutoff Grade g/t
Main Zone	4.4	814 000	2.0
West Zone	8.4	123 000	3.5
Midwest Zone	6.0	382 000	3.5

The Main zone is open pittable, while the West and Midwest zones will be mined using declines - hence the higher cutoff grades. The tonnages of all three zones can be increased substantially if a lower cutoff grade can be supported.

The North zone is the faulted extension of the Main zone, in the footwall of Wally's fault. The East zone appears to be a small unfaulted body. Although the grades of these two zones are comparable to the three ore zones, they are too deep to be economic at current gold prices.

WORK DONE

The work done up to 1985 is summarized in Faulkner, (1986). Drilling, feasibility and environmental studies have been conducted since. The total drilling on the property to date is 63 631 metres in 330 holes.

ACKNOWLEDGMENTS

My thanks are due to Peter Fox, QPX Minerals Inc. and to the crew on the property for their assistance and ready access to company plans and sections.

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FIREWEED (093M151)

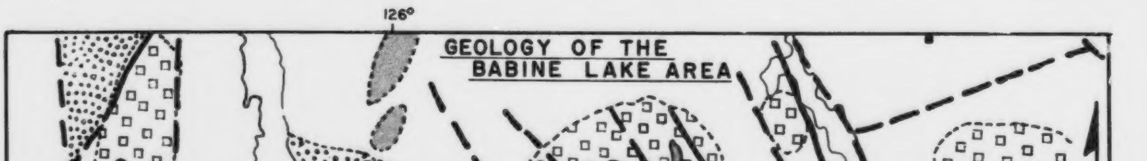
(Fig. B1, No. 22)

By M.L. Malott

LOCATION: Lat. 55° 01′ Long. 126°26′30″ 93M/1W, 2E; 93L/16W, 15E
OMINECA MINING DIVISION. 54 kilometres east-northeast of Smithers.
CLAIMS: GER 1-4; GRR 1-3; FIREWEED 1-3; FW 1-7; MEG 1-4.
ACCESS: The claims are accessible from Smithers via Highway 16 south to Eckman Road which becomes the Babine Road. At kilometre 58 on the Babine Road a logging road extends eastward 7 kilometres to the centre of the claims.
OWNER/OPERATOR: CANADIAN UNITED MINERALS INC.
COMMODITIES: Silver, lead, zinc, copper, gold.

EXPLORATION HISTORY

The Fireweed property was staked in July 1987. after prospectors discovered float containing anomalous gold. Two mineralized outcrops were identified with promising assay results which prompted Canadian United Minerals Inc. to option the property and begin an exploration program in mid-September 1987 (Holland, 1988). By mid-December 1987, prospecting as well as soil sampling, geological mapping, trenching, VLF-EM, magnetometer and IP surveys had identified a number of targets. From January to August 1988, 32 diamond-drill holes tested these targets while further IP, VLF-EM and


126°
GEOLOGY OF THE BABINE LAKE AREA
N
LEGEND
Quaternary
Overburden
Upper Jurassic to Mid Cretaceous
Bowser Lake & Skeena Group Sediments
Early to Mid Jurassic
Hazelton Group Volcanics & Sediments
Upper Triassic
Takla Volcanics
Tertiary
Babine Intrusives
Newman Volcanics
Early Jurassic
Intrusives
Base Metal Occurrence
Mine Site
Road
Drift Boundary
Fault (defined, approx)
Geological Contact
Property Boundary
Smithers Landing
Old Fort
Babine Lake
Fireweed
BELL
GRANISLE
53°
Scale: 0 2mi. 0 1.6 3.2km

—adapted from GSC OF. 351, H.W.Tipper, 1976.
GSC OF. 720, T.A.Richards, 1980.

A.H./05/89

Figure B-22-1. Geology of the Babine Lake area.

magnetometer surveys were completed. Another 27 holes were drilled from September to January 1989, for a total of approximately 10 800 metres.

REGIONAL SETTING

The Fireweed occurs within the Stikine terrane of the Intermontane Belt (Richards, 1988). The Stikine terrane evolved during a period of island arc volcanism in the late Paleozoic to middle Jurassic. In the Fireweed area upper Triassic Takla volcanics, predominantly augite-feldspar porphyry flows, outcrop along the west shore of Babine Lake south of the West Arm (Figure B-22-1). The last episodes of the arc-volcanism occurred during the early to middle Jurrasic when maroon to green tuffs, sandstones, siltstones and shales of the Hazelton Group were deposited. These rocks are exposed north, east and west of Babine Lake.

After the waning of arc volcanism a molasse stage in the late Middle Jurassic to middle Early Cretaceous created two marine to nonmarine clastic units, the Bowser Lake and Skeena groups. Rocks of this age are found adjacent to the Hazelton Group on the north shore and east and west of Babine Lake.

The welding of the Stikine terrane to the craton in the early Cretaceous produced the regional Omineca uplift to the east. The impingement of the Wrangel and Alexander terranes on the west occurred at about the same time and resulted in the emergence of the Coast crystalline complex. The Stikine terrane was subjected to transtensional continental stresses from the middle Cretaceous through to the Eocene. It was during this time that mainly calcalkaline volcanic rocks, the Babine volcanics and Newman intrusives (both Eocene), were formed in a series of down-dropped volcanic basins. They extend from the Northwest Arm of Babine Lake southeasterly to the Granisle area.

Since the Paleocene, the region has been influenced by uplift, development of basin-and-range morphology and extensive glaciation leaving much of the Fireweed property and surrounding area covered by glacial debris.

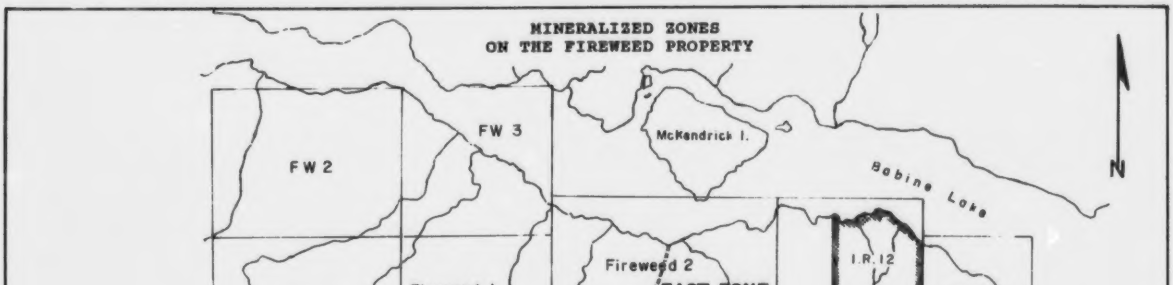

MINERALIZED ZONES
ON THE FIREWEED PROPERTY
N
McKendrick I.
Babine Lake
FW 2
FW 3
FW 1
Fireweed 1
Fireweed 2
EAST ZONE
I.R. 12
FW 5
Fireweed 3
GRR 1
JAN ZONE
Sphalerite Showing
3200 ZONE
GER 1
GFR 3
FW 4
1600 ZONE
FW 7
GRR 3
GER 2
Mn Showing
SOUTH ZONE
GER 4
GRR 2
WEST ZONE
FW 6
MEG 4
MEG 3
Smithers
MEG 2
MEG 1
LEGEND
IP Anomaly
Magnetic Anomaly
× Surface Showing
Logging Road
SCALE: 0 1 2 km.
A.H. 05/89

Figure B-22-2. Mineralized zones on the Fireweed Property.

PROPERTY GEOLOGY

An extensive blanket of glacio-lacustrine clay, as thick as 40 metres, covers 95 per cent of the claim area; a factor which undoubtedly delayed discovery of the mineralization.

The oldest rocks known on the property are lower to middle Jurassic Hazelton volcanics (Holland, 1988) and are exposed in a number of small outcroppings on the south side. On the GER 4 and FW 6 claims the volcanics are commonly fine grained, maroon to green andesitic to dacitic tuffs and lapilli tuffs. On the GRR 2 claim the rocks are green to light green dacite-rhyolite tuffs with some pale green chert interbeds, outcropping primarily in creek beds.

Interbedded mudstones, siltstones and sandstones of a thick deltaic sequence, which appears to underlie much of the claim group, are exposed in the central part of the property. These sediments are thought to belong to the Kitsun Creek member of the late Cretaceous Skeena Group. The sediments commonly strike 070-080 degrees and dip subvertically. Locally the strike varies to 020-030 degrees as at the discovery outcrop, the Mn showing, which is along a creek in the middle of the claim block.

Several drill holes have cut sills of strongly altered feldspar-porphyritic latite. These may well be related to the Eocene volcanics and Babine intrusions mapped by Tipper (1976) and Richards (1980).

Skeena Group sediments are the dominant unit encountered in drilling. The sediments are dark and medium to light grey. They vary from mudstone and siltstone to fine and coarse-grained sandstone. Cycles are not apparent and bedding can be massive of variable thickness, changing gradually or abruptly to finely laminated. Bedding features such as rip-up clasts, load casts and crossbedding are common. The beds are cut by numerous faults, many of them strongly graphitic. Drilling indicates Skeena Group sediments are in fault contact with Hazelton volcanics and strongly sericitized and carbonitized latite dykes cut the sediments.

GEOCHEMISTRY

In the fall of 1987, 3300 samples were collected from B-horizon soils and analysed for copper, lead, zinc, silver and arsenic (Holland, 1988). Results indicate a few small anomalies but overall the geochemical results were not encouraging, most likely the consequence of the thick cover of glacial drift.

GEOPHYSICS

VLF-EM surveys did not prove helpful; however, detailed magnetometer and IP surveys outlined a number of anomalous areas. A very low magnetic background, 100 gammas relief or less, characterizes the areas surveyed. Low background chargeability and resistivity values were also noted in the IP surveys.

The three main zones identified by geophysics are the West zone, the East zone and the South zone (Figure B-22-2). The first two zones contain coincident magnetometer and IP highs, whereas the South zone has an IP chargeability and resistivity high with no magnetic correlation (Holland, 1988). The West zone is coincident in part with the Mn showing. Three other zones identified by geophysics are the 1600, 3200 and Jan.

SURFACE DRILLING

One of the first eight holes, out of a total of 38, testing the Mn showing and West zone anomaly returned encouraging silver values. Six diamond-drill holes were put down on the East zone and four on the South zone. In early 1989, the Jan and 1600 zones were being drilled.

It is inferred, from drilling and geophysics, that the strike of the sediments is generally 070-080 degrees.

MINERALIZATION

Mineralization generally occurs in one of three forms:

(1) Breccia zones, strongest in the core of the IP anomalies on the West and East zones, are fractured or brecciated sediments infilled with fine to coarse-grained massive pyrite-pyrrhotite and lesser amounts of sphalerite, chalcopyrite and galena.

(2) Disseminated sulphides occur as fine to very fine-grains which are lithologically controlled within coarser-grained sandstones. The pyrite, marcasite, sphalerite, galena and minor tetrahedrite are usually found interstitial to the sand grains.

(3) Massive sulphides, which are fine-grained, commonly banded, containing rounded quartz-eyes and fine sedimentary fragments, occur as distinct bands within fine-grained sediments. The massive sulphides generally contain alternating bands of pyrite/pyrrhotite and sphalerite/galena. They are associated with the breccia zones and are commonly sandwiched between altered quartz-latite dykes.

Alteration in the sediments occurs in the groundmass and appears associated, with the porous, coarse sandstones. Common secondary minerals are quartz, ankerite, sericite, chlorite, kaolinite and sulphides (Holland, 1988).

Mn SHOWING

The Mn showing is seen in outcrop on the east side of a creek on the GER 2 claim. Fine to medium-grained sandstone with a heavy manganese coating lies in massive beds with a subvertical dip and a local strike of 30 degrees. At the showing, the sandstone is quartz-carbonate-sericite cemented and shows some rusty iron staining from minor amounts of pyrite. Five trenches reveal a coarse sandstone bed, 9 to 12 metres wide, which is part of a fine-grained sandstone and siltstone sequence. The most westerly 4 to 6 metres, of the coarse sandstone, are strongly manganiferous with greater than 10 per cent manganese in some instances. Minor pyrite, sphalerite and galena are associated with the increased manganese content. Assays show silver values ranging from 0.4 to 139.5 grams per tonne over widths up to 4.6 metres (Holland, 1988).

Diamond-drill holes testing the Mn showing returned assays of up to 68.6 grams per tonne silver, 3.5 per cent zinc, 0.6 per cent copper, 2 per cent lead and anomalous gold (GCN, 1988, No. 37, page 1).

SPHALERITE SHOWING

The sphalerite showing is 300 metres to the north and on the east bank of the same creek as the Mn showing. The outcrop is characterized by a strong, rusty yellow stain with sphalerite stringers crosscutting mudstone and sandstone (Holland, 1988). Thick overburden prevented tracing the mineralization further.

There is scant published drill information except for the West zone. The East zone is known to have a strike length of at least 400 metres and a 40 metre thickness containing sulphide-cemented breccia and veining. Mineralization is in the form of pyrite and pyrrhotite with lesser sphalerite and chalcopyrite.

WEST ZONE

The West zone straddles the GER 1 and GER 2 claims and is defined by an east trending, "horseshoe-shaped" IP anomaly. The anomaly is 800 metres long by 250 metres wide containing a magnetic anomaly measuring 75 by 200 metres. The original outcrop discoveries, the Mn and the sphalerite showings, lie at the westerly end of each of the prongs of the horseshoe. The coincident magnetometer and IP highs lie east of the showings. Drilling within the area of the coincident geophysical anomalies defined a mineralized area 300 metres long which is open along strike and at depth. Mineralization has been found in the Skeena Group sediments to 200 metres depth although the majority of the 27 intersections are at less than 100 metres.

Selected assays of drill core from the West zone include (Northern Miner, 1989, Vol. 74 No. 52):

Width metres	Ag g/t	Pb %	Zn %
1.1	120.6	0.25	0.35
4.1	425.1	0.80	2.07
7.9	635.3	2.26	3.02
10.8	388.8	1.35	2.14

The bulk of the mineralization is hosted by a coarse sandstone in two parallel southwest-plunging shoots which combined are 30 to 60 metres wide (GCN, 1989, No. 66, page 1).

In the latter part of December 1988, drilling defined a flat-lying, funnel shaped "feeder" zone near the eastern limits of the West zone. It covers an area of 90 by 90 metres and extends to a depth of 75 metres but does not outcrop. Sandstone and shales interfinger throughout this area. Pyrrhotite, pyrite, sphalerite and chalcopyrite occur as massive sulphide mineralization associated with breccia and veins which cement mudstone and sandstone fragments that are millimetres to several metres in size (R. Holland, personal communication, 1989).

These zones of mineralization grade into unbrecciated or weakly veined areas. The sulphide content is variable and there are two distinct generations of veining. One contains massive sphalerite, the other massive pyrite and pyyrhotite. The breccia veins cut sericitized, latite dykes. The "feeder" zone also contains minor gold and copper. Selected assays (Northern Miner, 1989, Vol. 74, No. 52, GCN, 1989, No. 19, page 2) are as follows:

Width metres	Ag g/t	Zn %	Pb %	Cu %	Au g/t
14.0	68.6	3.94	1.73	0.08	0.6
10.5	6.2	3.46	0.94	0.08	1.1
6.2	124.1	7.25	3.32	0.13	0.8
7.4	23.7	4.26	0.18	0.20	0.5

ACKNOWLEDGMENTS

The author wishes to thank Bob Holland of Canadian United Minerals for the property information he graciously supplied as well as for reviewing the

article. Bob Helgason was very helpful conducting a property and core-shack tour.

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NOTES

MANSON RIVER 93N

MOUNT MILLIGAN (Phil-Heidi)

(Fig. B1, No. 23)

By E.L. Faulkner

LOCATION:	Lat. 55°08′30″ Long. 124°03′ 93N/1E OMINECA MINING DIVISION. The property is located on the southeast flank of Mount Milligan, approximately 95 kilometres north of Fort St. James.
CLAIMS:	PHIL 1, 8-12, 21-27, 29, HEIDI 1-4 (286 units).
ACCESS:	Approximately 145 kilometres northwest of Prince George via Highway 97, Windy, Phillips Mainline and Rainbow Creek logging roads.
OWNER/OPERATOR:	CONTINENTAL GOLD CORPORATION (70%), BP RESOURCES CANADA (30%) joint venture.
COMMODITIES:	Gold, copper.

INTRODUCTION

This is an update of a previous report by Faulkner (1986). The property was acquired in 1986 by United Lincoln Resources Inc., a subsidiary of Continental Gold Corporation. A major program of diamond drilling on coincident soil geochemical, induced polarization and magnetic anomalies has led to the discovery of a very large low-grade gold-copper-bearing alkali porphyry system in the contact aureole of a small porphyritic monzonite stock.

HISTORY

The Mount Milligan intrusive complex was prospected in the early 1970s for porphyry copper-molybdenum mineralization. Little work was done, and the possibility of gold mineralization was not examined. In 1982 and 1983, BP Selco Ltd. staked the Phil claims as an alkali-porphyry copper-gold prospect. In 1984, prospector Richard Haslinger staked the Heidi claims after discovering copper-gold mineralization in what is now the Creek zone. He later optioned these claims to BP Selco Ltd. Following soil geochemistry, induced polarization and magnetic surveys, BP Selco discovered and trenched a number of targets that appeared to be fracture related. Mixed to occasionally good results were obtained from the Creek, Esker, Boundary and South Boundary zones.

In 1986, United Lincoln Resources Inc., a subsidiary of Continental Gold Corporation, acquired a 70 per cent interest in the property. After some drilling on the Creek and Esker zones, extensive disseminated low-grade copper and gold mineralization was discovered in altered volcanic and volcaniclastic rocks on the south and east flanks of a small porphyritic monzonite stock.

GEOLOGICAL SETTING

The property is located in the central part of the Quesnel trough, a thick sequence comprising northwest-trending augite porphyry and hornblende porphyry flows of andesitic to basaltic composition, related pyroclastic rocks and minor tuffaceous argillites belonging to the Takla Group of upper Triassic to lower Jurassic age. The volcanic sequence is intruded by largely coeval calcalkaline and alkali porphyries. The Mount Milligan stock, located approximately 8 kilometres northwest of the area of current drilling, is a multiphase alkalic intrusion. From the summit area southeast, the following phases have been recognized: biotite monzonite, leucogabbro, monzonite, diorite and quartz diorite. An isolated porphyritic complex, of monzonite to diorite composition, on the eastern flank of Mount Milligan, is believed by C.M. Rebagliati (personal communication, 1989) to be of later, possibly Cretaceous age.

PROPERTY GEOLOGY

There is little outcrop on the property, and none in the area of current drilling. The oldest rocks consist of a thick sequence of approximately equal volumes of volcanic flows and pyroclastics of andesite to basalt composition. The flows comprise massive augite porphyry with lesser amounts of trachyte and hornblende porphyry. The pyroclastics comprise augite and augite-plagioclase tuffs and lapilli tuffs, massive to bedded trachytic tuffs with minor interbedded tuffaceous argillite, and coarse heterolithic volcanic breccias and agglomerates.

A small porphyritic monzonite stock, no more than 400 metres in diameter, has intruded this volcanic

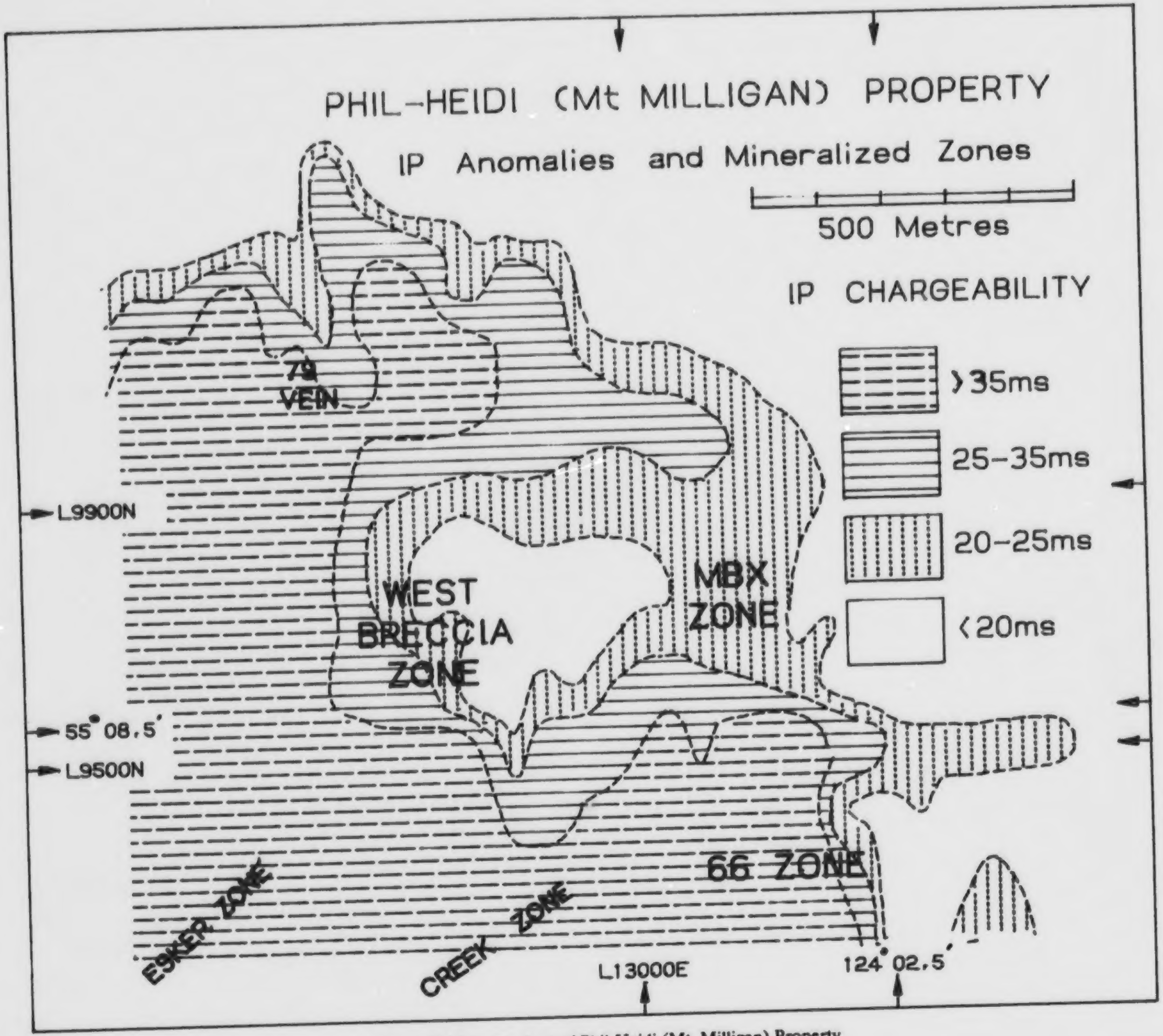

PHIL-HEIDI (Mt MILLIGAN) PROPERTY
IP Anomalies and Mineralized Zones
500 Metres
IP CHARGEABILITY
>35ms
25-35ms
20-25ms
<20ms
79 VEIN
L9900N
WEST BRECCIA ZONE
MBX ZONE
55° 08.5'
L9500N
66 ZONE
ESKER ZONE
CREEK ZONE
L13000E
124° 02.5'

Figure B-23-1. Geology of Phil-Heidi (Mt. Milligan) Property.

sequence. The margin of the stock is strongly and, in places, extensively brecciated. The dips of the volcanic sequence are radial, away from the stock, and vary from 60 degrees near the contact, to between 20 and 30 degrees at distances of 500 metres. A prominant near-concordant dyke of porphyritic monzonite from 10 to 40 metres thick occurs in the middle of the volcanic sequence and is clearly related to the stock. A number of minor porphyry dykes also occur within and near the stock. Some fresh diorite porphyry dykes are of post-mineral age and may be related to the porphyritic complex mentioned earlier.

Widespread weak to moderate pervasive chloritic and propylitic alteration extends outward 2500 metres from the stock. This is over-printed by intense pervasive potassic alteration. Within the stock this takes the form of red potash feldspar in the brecciated margin of the stock, and fine-grained biotite and grey potash feldspar in the surrounding volcanic rocks. Biotite in places may exceed 35 per cent of the rock and potash feldspar may exceed 50 per cent. This zone of intense potassic alteration extends more than 300 metres from the stock. Another zone of potassic alteration occurs approximately 900 metres southeast of the stock and may indicate the presence of another intrusion at depth. Minor amounts of albitic alteration are also present.

MINERALIZATION

Figure B-23-1 shows the induced polarization chargeability and the mineralized zones discovered to date. The central area of low chargeability covers the porphyritic monzonite stock. Three general types of mineralization occur on the property. They represent variations of a single mineralizing event and may grade into each other.

Disseminated to massive auriferous chalcopyrite and pyrite occur in thin subparallel tabular bodies in steeply dipping shear zones or fracture zones that may be radial to the stock. The host rocks are propylitized and contain anomalous gold and copper concentrations. Grades of 3 to 90 grams per tonne gold and 0.02 to 10 per cent copper have been reported over widths of a few centimetres to 2 metres. The Esker zone, Creek zone and 79 vein (Figure B-23-1) are examples of this type of mineralization. Two other zones, the Boundary and South Boundary, are low-grade examples not shown on Figure B-23-1. They are located 350 metres and 900 metres respectively southwest of the Creek zone.

Widespread disseminated and veinlet pyrite and chalcopyrite occurs in the potassic-altered volcanic rocks and to a lesser extent in the propylitically altered rocks surrounding the stock. Gold concentrations increase with increasing pyrite/chalcopyrite ratio, with the highest gold values being obtained at the outer edge of the potassic alteration zone. Minor magnetite and rare bornite are also present. Grades vary from 0.3 to 1.0 gram per tonne gold and 0.2 to 0.8 per cent copper over widths of 10 to 80 metres.

The MBX and 66 zones (Figure B-23-1) are higher grade ends of a mineralized zone that is more than 1000 metres long and 300 metres wide. The MBX zone is a copper-gold zone and the 66 zone is a gold-rich zone.

Veinlet and fracture-controlled chalcopyrite and pyrite mineralization occurs in the West Breccia zone, located in the brecciated margin of the porphyritic monzonite. Limited drilling indicates copper grades of 0.3 to 0.4 per cent and low gold values over widths exceeding 100 metres.

DISCUSSION

The Phil-Heidi property is a major low-grade alkali porphyry system. Two notable features of this system are the higher than usual gold values and the intense potassic alteration. Limited small-scale metallurgical tests have indicated that good recoveries of both copper and gold are possible using conventional flotation and cyanidation methods. There is very good potential for outlining one or two zones of 10 million tonnes or more of open-pittable gold mineralization, and good potential for outlining 100 million tonnes or more of low grade gold-copper mineralization.

WORK DONE

Since United Lincoln Resources acquired the property, more than 23 000 metres has been drilled in 115 holes of an ongoing drill program.

ACKNOWLEDGMENTS

The cooperation of Jeff Franzen and Mark Rebagliati in providing information and ready access to company plans and reports is greatly appreciated.

REFERENCES

Faulkner, E.L. (1986): Phil, Heidi, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Exploration in B.C. 1985, pages B16-17.

NOTES

INDATA (93N192)

(Fig. B1, No. 24)

By E.L. Faulkner

LOCATION: Lat. 55°22′30″ Long. 125°21′ 93N/6W
OMINECA MINING DIVISION. Located on the west side of Albert Lake, about 125 kilometers northwest of Fort St. James.
CLAIMS: INDATA 1, 2, INDIO, INDIO 2, 3, SCHNAPPS, SCHNAPPS 1, 2, 3, 5 (155 units).
ACCESS: By helicopter or float plane about 20 kilometres from Tchentlo Lake, which is accessible by logging road from Fort St. James.
OWNER/OPERATOR: EASTFIELD RESOURCES LTD., IMPERIAL METALS. CORPORATION, PLACER DOME INC. joint venture.
COMMODITY: Gold.

HISTORY

The property was staked in 1983 following reconnaissance exploration by Imperial Metals Corporation along the Pinchi fault system northwest of Fort St. James. After some preliminary geochemical and geophysical work had been done, Eastfield Resources Ltd. acquired the property in 1986. Gold-bearing quartz-sulphide mineralization was discovered in 1987, and subsequent drilling discovered mineralization in a north-trending fault zone more than 1.5 kilometres long.

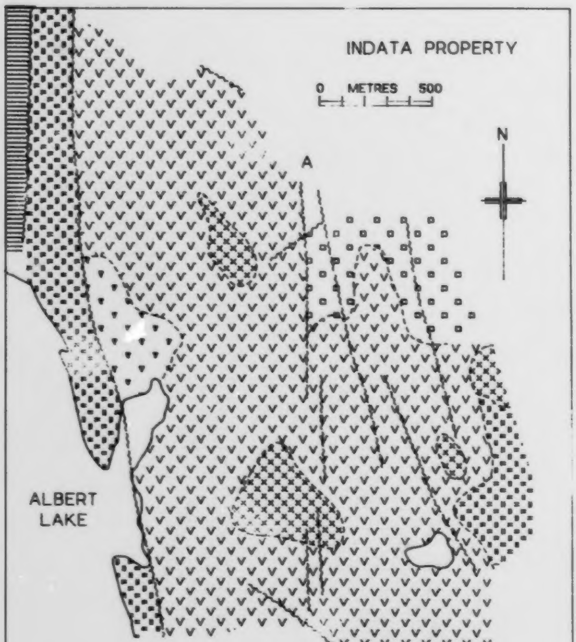
GEOLOGICAL SETTING

The regional geological setting has been described by Armstrong (1949), and the area to the north and east of the property has been described in some detail by Garnet (1978). The property is located on the Pinchi fault, a major northwest-trending fault system that marks the boundary between predominantly calcareous sedimentary rocks of the Cache Creek Group of Pennsylvanian to Permian age to the west and predominantly volcanic rocks of the Takla Group of late Triassic age to the east. On the property, the fault system comprises a number of subparallel steep west-dipping reverse faults that probably flatten into thrusts at depth. These faults have juxtaposed slices of rocks of different lithologies in an imbricate pattern.

PROPERTY GEOLOGY

The property geology is shown on Figure B-24-1. The oldest rock unit is a massive white limestone of the Cache Creek Group. Much of the claim area is underlain by medium-grained greenish andesites. These are predominantly flows, with minor interbedded tuffaceous greywackes. The age of the andesites is uncertain but they are presumed to belong to the Cache Creek Group. Small areas of dark amygdaloidal basalt flows are also exposed.

Three intrusive suites are exposed on the property. An equigranular porphyritic granite outcrops as a fault-bounded slice on the shore of Albert Lake and as a small pluton to the east of the property. Regionally, similar granites have been described as belonging to the Topley intrusions of early Jurassic age.



(GEOLOGY ADAPTED FROM COMPANY PLANS)

Figure B-24-1. Geological map of the Indata Property.

Medium to coarse-grained diorite, with lesser gabbro and pyroxenite, occurs as small plutons a few hundred metres in diameter. The diorite is similar in appearance to, and is probably coeval with, the andesite flows.

Serpentinite and altered serpentinite in the form of talc-carbonate rock occurs to the north and south of the property. This unit has also been intersected in several drill holes, indicating more extensive intrusions at depth. They are probably altered Trembleur intrusions, of Permian to middle Triassic age.

MINERALIZATION

Strong arsenic soil geochemical anomalies (more than 75 ppm) occur in several places on the property, with coincident high-contrast anomalies in other metals. Coincident soil geochemical anomalies, induced polarization and EM conductors in a general north-trending zone, marked as A-B on Figure B-24-1, have been drill tested. Mineralization found to date is of two types. Gold is associated with quartz, pyrite, arsenopyrite and minor amounts of pyrrhotite and tetrahedrite in discontinuous, shallow east-dipping replacement veins in silicified andesite. Better intersections reported to date are 6 to 8 grams gold per tonne over widths of 1 to 1.5 metres. One hole also intersected disseminated sulphide mineralization in a talc-carbonate-altered serpentinite. This graded 31.6 grams gold per tonne over 6 metres.

WORK DONE

Work done to date, mostly by Eastfield Resources Ltd., includes geological mapping, multi-element soil geochemistry, induced polarization and VLF-EM geophysical surveys. Drilling totals 2100 metres in 23 holes.

REFERENCES

Armstrong, J.E. (1949): Fort St. James Map Area, Cassiar and Coast Districts, B.C., *Geological Survey of Canada*, Memoir 252.

Garnet, J.A. (1978): Geology and Mineral Occurrences of the Southern Hogem Batholith, *B.C. Ministry of Energy, Mines and Petroleum Resources,* Bulletin 70.

QCM (093N198)

(FIG. B1, NO. 25)

By Filippo Ferri

LOCATION:	Lat. 55°41′ Long. 124°35′ 93N/10 OMINECA MINING DIVISION. Approximately 7 kilometres west of Manson Creek.
CLAIM:	QCM.
ACCESS:	Via a 1-kilometre long four-wheel drive road which intersects the Omineca Mining Road approximately 7 kilometres west of Manson Creek.
OWNER:	GOLDEN RULE RESOURCES LIMITED.
COMMODITY:	Gold.

HISTORY

Anomalous gold, silver, copper and zinc values in soils and rock samples were first reported in this area in 1972 (Rodgers, 1972). This early soil geochemistry delineated two large anomalous trends, each approximately 3000 metres long by 50 to 300 metres wide (Rodgers, 1972; Fox, 1981). A 1981 exploration program by Golden Rule Resources Ltd. confirmed and further refined these trends (Fox, 1981). More detailed geological, geochemical and geophysical work was carried out in 1982 by Anaconda Canada Exploration Ltd, which explored the property, (VLF-EM, trenching and mapping) and led to a reverse-circulation drill program in 1983 (Riccio, 1983).

GEOLOGIC SETTING

The QCM claims are located on the eastern margin of the Quesnellia terrane along the eastern edge of the Intermontane Belt of the Canadian Cordillera. These rocks are faulted against variably metamorphosed rocks of the Omineca Belt (Ferri and Melville 1989).

Rocks belonging to Quesnellia are assigned to the upper Triassic to lower Jurassic Takla Group, the middle to upper Paleozoic Slide Mountain Group and the middle to upper Paleozoic Harper Ranch Group These rocks are intruded by the early Cretaceous Germansen batholith, the Triassic to Cretaceous Hogem batholith (Garnett, 1978), and the middle to late Paleozoic Wolf Ridge gabbro, which is believed to be coeval with the Slide Mountain Group (Ferri and Melville, 1989).

The Slide Mountain Group is composed of graphitic slates, siltstones, cherts, wackes, limestones, basalts, gabbros and ultramafic rocks representative of oceanic rocks formed in a marginal basin.

The Takla Group is a thick sequence of predominantly pyroclastic and epiclastic rocks with lesser massive flows. These are sub-alkaline to calc-alkaline in composition (Meade, 1977) and represent an arc assemblage. They overlie carbonates, epiclastics and mafic volcanics of the Harper Ranch Group.

All these rocks have been weakly metamorphosed and the boundary between the Takla and Slide Mountain groups is marked by the Manson fault zone, a strike-slip fault of unknown sense and displacement.

Gold placers in the Manson Creek - Germansen Landing area were first discovered in the late 1800s. As in many other placer areas of the province, no significant lode gold deposits have been discovered. Minor occurrences of gold-bearing quartz veins are found in the area along the Manson fault zone and are hosted by both the Slide Mountain and Takla groups.

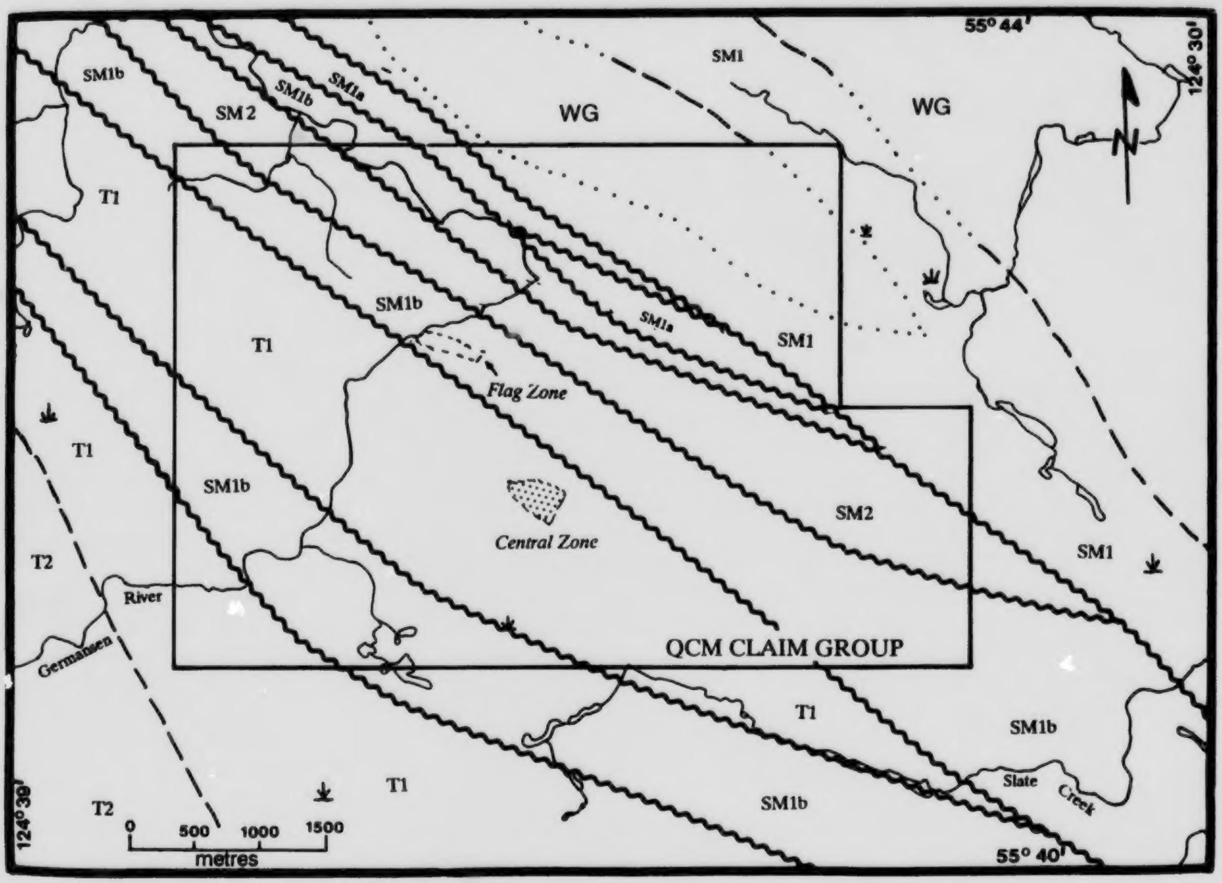
PROPERTY GEOLOGY

On the QCM claim group (Figure B-25-1), poorly exposed rocks of the Takla and Slide Mountain groups are incorporated within the Manson fault zone. Lithologies of the Slide Mountain Group are primarily siliceous siltstones, graphitic phyllites and argillites, aphanitic to pyroxene-phyric flows, gabbroic sills and dykes, lesser cherts, and serpentinized ultramafics. These rocks belong to the first two subdivisions of the Slide Mountain Group as designated by Ferri and Melville (1989).

The phyllites and argillites are grey to black, thinly bedded and graphitic. These sediments sometimes grade into calcareous horizons. A penetrative cleavage is dominant in the phyllites but becomes less pervasive in the argillites.

The ultramafic bodies tend to be primarily serpentine. Other lithologies include talc-serpentine schists and mariposite-talc-ankerite-serpentine schist. The schistosity in these bodies is usually very weak.

The siltstones in the Slide Mountain Group are greyish green, siliceous to cherty and are typically massive. These are interbedded with grey, cream to white chert which is thickly to massively bedded. Both these lithologies are intruded by dykes and sills of gabbro which commonly contain a penetrative fabric, are finely to coarsely crystalline and contain equal proportions of plagioclase and mafic minerals. These bodies are related to the Wolf Ridge gabbro which intrudes the Slide Mountain sediments.


55° 44'
124° 30'
SM1b
SM 2
SM1b
SM1a
WG
SM1
WG
T1
SM1b
T1
SM1a
SM1
Flag Zone
T1
SM1b
Central Zone
SM2
SM1
T2
River
QCM CLAIM GROUP
Germansen
T1
SM1b
Slate
Creek
T1
SM1b
124° 39'
T2
0
500
1000
1500
metres
55° 40'

LEGEND

LAYERED ROCKS

UPPER TRIASSIC/LOWER JURASSIC

TAKLA GROUP

T2 *Volcanic sandstone, conglomerate, minor siltstone and argillite*

T1 *Argillite, siliceous argillite, siltstone and minor chert, limestone, volcanic wackes and volcanic sandstone*

UPPER PALEOZOIC/LOWER TRIASSIC

SLIDE MOUNTAIN GROUP

SM2 *Middle: Argillite, siliceous argillite, siltstone, cherts, and minor mafic volcanic, volcaniclastics, sandstone, conglomerate and ribbon chert*

SM1 *Lower: (a) Phyllite, argillite, calcareous phyllite, carbonate, and minor quartzose siltstone/wacke, ribbon chert (b) Dacite tuff (c) Ultramafics*

INTRUSIVE ROCKS

UPPER PALEOZOIC/LOWER TRIASSIC

WG *Gabbro and foliated gabbro*

Figure B-25-1. Geology of the QCM Claim group.

The basalts are green to dark green, amygdaloidal, mafic flows with small phenocrysts of pyroxene and plagioclase. These basalts commonly contain a penetrative cleavage.

Rocks assigned to the Takla Group are predominantly volcanically derived sediments (siltstones, sandstones, wackes and conglomerates) and argillite which belong to the basal part of this group. Minor aphanitic, mafic to intermediate flows are also found in this sequence.

The Takla argillites are thin to moderately bedded, cream to rusty weathering and grey on fresh surfaces. They are interbedded with cream to beige, thin to moderately bedded siltstones to siliceous siltstones in sequences 1 to 10 metres thick. Of lesser abundance are thin to thickly bedded volcanic sandstone, conglomerate, wacke and minor breccia. Clasts within these sediments are subangular feldspar and augite crystal fragments, feldspar-augite porphyries, aphanitic volcanics and minor argillite.

Rocks belonging to both groups occupy northwest - trending belts separated from each other by steeply dipping faults related to the Manson fault zone.

ALTERATION

Close to mineral occurrences, all rock types have been affected, to varying degrees, by carbonate alteration. The alteration assemblages vary with lithology (Riccio *et al.*, 1982) with the main alteration minerals being ankerite and pyrite.

Riccio *et al.* distinguish two types of carbonate alteration, the first characterized by larger, porphyroblasts which have poikiloblastic cores containing quartz, feldspar, hematite and other opaques, and the second by idioblastic, iron-poor porphyroblasts which may be related to the inclusion-free rims of the porphyroblasts in the first type. The only sulphide recognized in these altered zones is pyrite which may form up to 10 per cent of the rock. The pyrite is generally fine grained and idioblastic

Intensely altered zones also contain abundant quartz veins of varying widths.

Within the mafic and intermediate volcanics the alteration assemblage is typically ankerite-albite-sericite-quartz±mariposite±pyrite. The volcaniclastic rocks typically contain ankerite, sericite, albite, quartz±pyrite.

Within the sediments the alteration is confined to the graphitic phyllite and argillite with up to 20 per cent ankerite porphyroblasts present. In some areas intense sericitization of the sediments accompanies these porphyroblasts.

The ultramafic rocks are the most intensely altered; in extreme cases being composed essentially of ankerite, quartz, talc±mariposite±tremolite±pyrite.

MINERALIZATION

Two zones of anomalous gold values and accompanying carbonate alteration have been delineated, the Flag and the Central zones. The remainder of this discussion will focus on the Central zone.

The Central zone is some 200 metres by 300 metres in area and is hosted by epiclastic rocks of the Takla Group. The volcanic sediments are bleached to a whitish to cream-coloured rock composed primarily of albite, sericite, quartz, iron-carbonates and pyrite (5 per cent but with very little quartz veining). The original clastic nature of these rocks is barely discernable.

Preliminary surface rock geochemistry on this zone returned gold values as high as 3700 ppb from 1-metre chip samples (Riccio *et al.*, 1982). The zone was tested by four reverse-circulation drill holes which averaged 100 metres in length. They all cut highly altered volcanic sediments as seen on surface. Median gold values range from 170 ppb in Hole 1 to 130 ppb in Hole 4. In Hole 2 a 5-metre section averaged 1.8 grams per tonne gold with a 1-metre section of 3.2 grams per tonne. Several 1-metre sections returned over 1 gram per tonne gold.

Riccio *et al.* point to a positive correlation between anomalous gold values and pyrite content indicating that the gold is within the pyrite. They also indicate that the intensely altered zones are also quartz veined and that this does not exclude the possibility that although the gold may be present in the quartz veins, no gold has been reported from these veins and very little veining is present in this area.

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Riccio, L., Atkinson, M. and Scott, A. (1982): Geological, Geochemical and Geophysical Report on the QCM 1-5 and OPEC 1-10 Mineral Claims, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report Number 10746.

Rodgers, T. (1972): Report on the Geology and Geochemistry of the PAD, DOM, BYE and MATT Groups, Omineca Mining Division, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report Number 4245.

DOUGLAS CHANNEL 103H

CROWN OF THE SEA

By D.V. Lefebure

(Fig. B1, No. 26)

LOCATION:	Lat. 53°21′50″ Long. 129°16′40″ 103H/6W SKEENA MINING DIVISION. The claims are located approximately 6 kilometres south of Hartley Bay on the west side of Camp Point which is also known as Waterman Point.
CLAIMS:	COTS 1-2.
ACCESS:	By boat or float plane.
OWNER/OPERATOR:	DON BURRIDGE.
COMMODITIES:	Gold, copper.

In 1988 Don Burridge completed a gold-prospecting program south of Hartley Bay, principally in the Gil Island area using a small aluminum boat to explore the shoreline. On Camp Point he located a quartz vein with associated sulphides (approximately halfway between the high and low tide marks). This may be a new showing since there is no evidence of previous sampling and the occurrence is not listed in MINFILE.

The claims are underlain by dioritic gneiss belonging to a migmatitic complex which is part of the Coast Complex (Roddick, 1970). The gneiss exhibits a well-developed banding that trends northwesterly, dips steeply east and is cut by numerous pegmatitic veinlets. Immediately to the west, Grenville Channel marks the trace of a major northwest-trending fault.

There are a number of gold occurrences in the region, including the Surf Inlet mine which closed in 1943. It produced 918 129 tonnes of ore grading 13.2 grams gold and 6.8 grams silver per tonne and 0.31 per cent copper.

MINERALIZATION

A single quartz vein crops out on the shoreline and extends laterally for approximately 20 metres. The vein width varies from more than 60 centimetres to less than 1 centimetre near the western termination. The vein trends 228 degrees to 235 degrees and dips 38 degrees to 55 degrees north. A minor northwest-trending left-hand fault displaces the vein by 1.5 metres at one point. Patches of pyrite, chalcopyrite and dark green chlorite occur scattered throughout the white quartz. Flakes of molybdenite coat some fractures within the vein that seem to be preferentially oriented parallel to it. Wallrock alteration is not obvious although disseminated pyrite occurs adjacent to the vein.

Five grab samples were collected from the showing, including four from the vein (Table B-26-1). Two samples contained more than 1 per cent copper and geochemically anomalous gold and molybdenum values.

TABLE B-26-1. GRAB SAMPLE ANALYSES

Sample No.	Au ppb	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Mo ppm	Hg ppb	Sb ppm
DVL88040	4	0.5	31	4	4	386	10	0.5
DVL88041	12	1.0	246	12	148	8	10	2.0
DVL88042	560	5.0	1.42%	4	8	45	47	0.5
DVL88043	1	0.5	18	4	3	50	10	0.5
DVL88044	310	3.0	1.42%	5	16	136	88	0.5

DVL88040	*molybdenite and quartz from vein*
DVL88041	*dioritic gneiss with minor pyrite*
DVL88042	*pyrite patch from quartz vein*
DVL88043	*massive white quartz*
DVL88044	*patch of chalcopyrite in quartz*

Vein mineralogy on the Crown of the Sea property is similar to that of the veins at the Surf Inlet mine. A recent investigation of the lithogeochemistry of the Surf Inlet veins by Harris and Gardiner (1986) revealed that anomalous molybdenum correlates to gold mineralization in the veins. These similarities between Surf Inlet and the Crown of the Sea suggest further work is warranted on the latter property to further test the known vein or locate new veins in the area.

WORK DONE

Surface prospecting and sampling.

REFERENCES

Harris, J.F. and Gardiner, S. (1986): Summary Report on the Lithogeochemical and Mineralogical Study of the Surf Inlet Property, *B.C. Ministry of Energy, Mines and Petroleum Resources*, Assessment Report 15 377.

Roddick, J.A. (1970): Douglas Channel - Hecate Strait Map-area, B.C., *Geological Survey of Canada*, Paper 70-41, 56 pages.

NOTES

ISKUT RIVER 104B

SILVER BUTTE (104B150)

(Fig. B1, No. 27)

By M.L. Malott

LOCATION:	Lat. 56°07′12″ Long. 130°01′44″ 104B/1E SKEENA MINING DIVISION. Along the east side of the Salmon River valley 25 kilometres north of Stewart.
CLAIMS:	SARAH 1, PACKERS FRACTION, WINER FRACTION, WINER, BIG MISSOURI, KANSAS.
ACCESS:	By gravel road from Stewart.
OWNER:	Esso Minerals Canada, Tenajon Resources Corporation.
OPERATOR:	TENAJON RESOURCES CORPORATION.
COMMODITIES:	Gold, silver, copper, lead, zinc.

INTRODUCTION

The Silver Butte property is located within the Stewart mining camp between the gold-silver mines, Silbak-Premier to the south and Big Missouri slightly to the north (Figure B-27-1). These mines, which have been closed for more than 20 years, will be reopened in 1989 by Westmin Resources Limited. Further work on the Silver Butte property may lead to another gold-silver mine in the camp.

EXPLORATION HISTORY

Exploration in the vicinity of the Silver Butte property dates to the turn of the century when prospectors were looking for placer gold in the Stewart area (Grove, 1971). Silver mineralization was subsequently discovered on Big Missouri Ridge. The Big Missouri claim group was located in 1904 and included the Big Missouri Crown grant (Lot 3217) which is now part of the Silver Butte property. The claim group also included the Province claim (Lot 3208) and a number of other Crown grants (Lots 3901-4, 3207, 3224) which cover the Province, Dago and SI zones of the Big Missouri mine, soon to be reopened by Westmin Resources Limited. The distinction between the Big Missouri Crown grant and the claim group of the same name is important in tracing the history of exploration and mining in the area, particularly through the period 1916 to 1942.

The exploration history of the Silver Butte property, including the Big Missouri Crown grant, is summarized below. Information sources are British Columbia Minister of Mines Annual Reports, unless otherwise referenced.

1910	An 18-metre crosscut was driven towards a large surface showing on the Big Missouri claim.
1913	A 14-metre mineralized cut was opened on the surface of the Big Missouri claim.
1916	A further 6 metres were tunneled on the Big Missouri claim.
1916-36	Starting in 1916, extensive exploration was completed on the adjacent claims to the east, but not specifically the Big Missouri claim. This exploration outlined the Big Missouri orebody which was mined in 1927, 1931 and continuously from 1938 to 1942. Production was primarily from the Province claim located about a kilometre to the north of the Big Missouri crown grant. Total production from 768 941 tonnes mined was 1816 kilograms of gold, 1638 kilograms of silver, 1230 kilograms of lead and 1778 kilograms of zinc.
1930	Buena Vista Mining Company completed limited trenching (Dawson and McGuigan, 1982).
1939	Buena Vista Mining Company conducting a surface sampling program (Ryback-Hardy, 1978).
1942	After the Big Missouri mine closed in 1942 exploration along the ridge was sporadic until the discovery of the Granduc mine.
1969	Lockwood Survey Corporation conducted an airborne EM and magnetometer survey of the Salmon River area.
1971	El Paso Mining and Milling Company conducted a soil geochemical survey (McGuigan, 1981).
1975	Canex Placer Limited prospected the property (Hall, 1975).
1978	Consolidated Silver Butte Mines Ltd. prospected on the property (Ryback-Hardy, 1978).
1979	Consolidated Silver Butte Mines Ltd. conducted an IP survey (Cochrane, 1979).

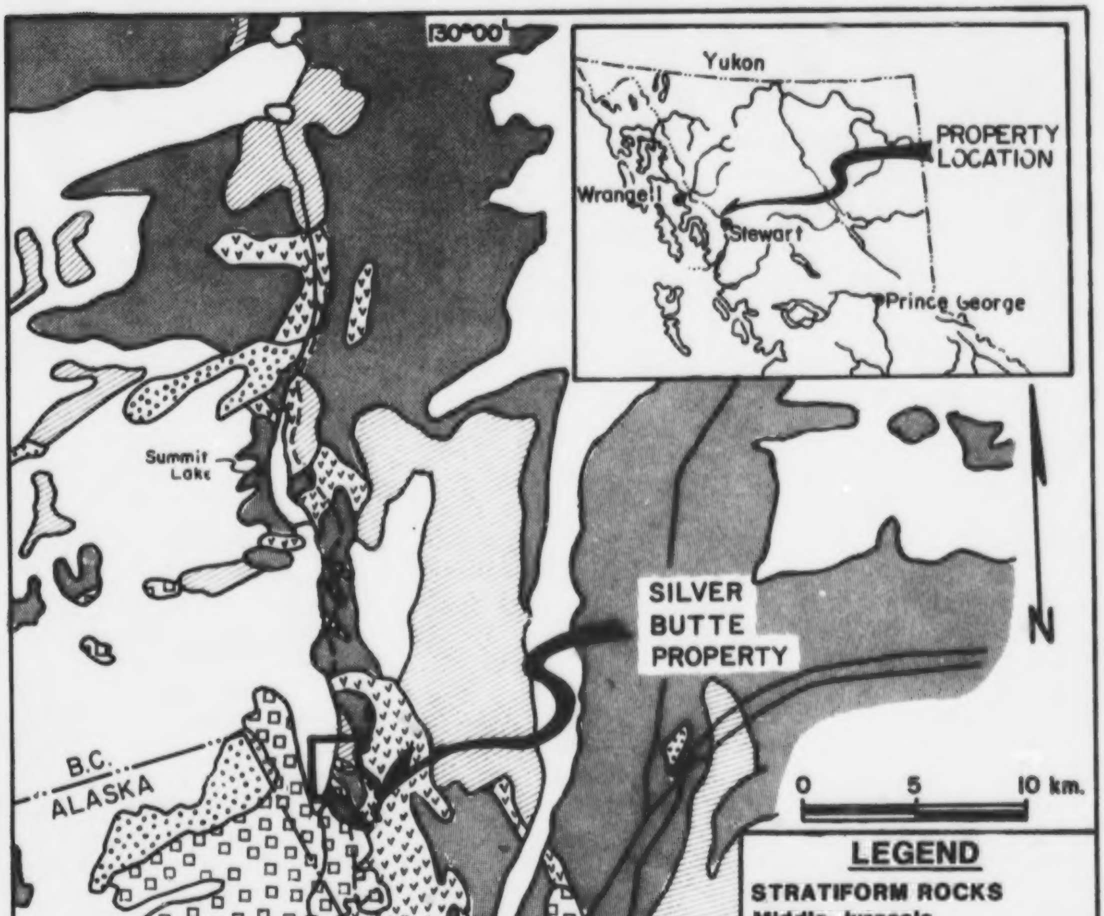
130°00'
Yukon
PROPERTY LOCATION
Wrangell
Stewart
Prince George
Summit Lake
SILVER BUTTE PROPERTY
N
0 5 10 km.
B.C.
ALASKA
56°00'
Salmon River Road
Bear River
STEWART
Hyder
Portland Canal
Adapted from:
Tenajon Resource Corp.
Location Map and E.W.Grove Geology Map, 1986.
LEGEND
STRATIFORM ROCKS
Middle Jurassic
Sediments
Lower to Middle Jurassic
Volcanics and Sediments
PLUTONS
Cenozoic
Hyder Pluton
Jurassic
Texas Creek Pluton
METAMORPHIC ROCKS
Jurassic
Altered tuffs and sediments
Glacier
Road
A.H. 05/89

Figure B-27-1. Regional geology and property location map.

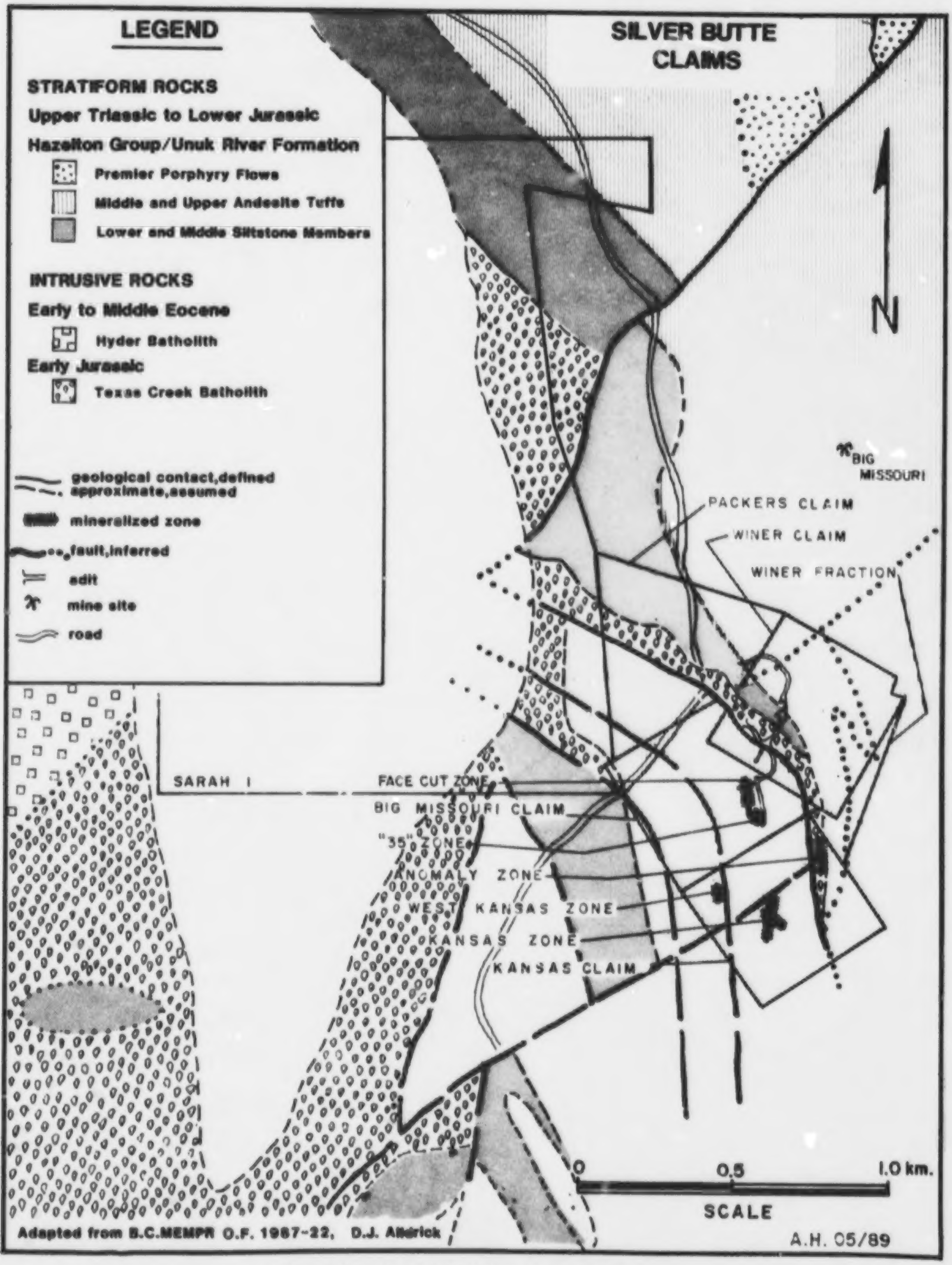
LEGEND
STRATIFORM ROCKS
Upper Triassic to Lower Jurassic
Hazelton Group/Unuk River Formation
Premier Porphyry Flows
Middle and Upper Andesite Tuffs
Lower and Middle Siltstone Members
INTRUSIVE ROCKS
Early to Middle Eocene
Hyder Batholith
Early Jurassic
Texas Creek Batholith
geological contact, defined
approximate, assumed
mineralized zone
fault, inferred
adit
mine site
road
SILVER BUTTE CLAIMS
N
BIG MISSOURI
PACKERS CLAIM
WINER CLAIM
WINER FRACTION
SARAH I
FACE CUT ZONE
BIG MISSOURI CLAIM
"35" ZONE
ANOMALY ZONE
WEST KANSAS ZONE
KANSAS ZONE
KANSAS CLAIM
0
0.5
1.0 km.
SCALE
Adapted from B.C.MEMPR O.F. 1987-22, D.J. Alldrick
A.H. 05/89

Figure B-27-2. Silver Butte claims and area geology.

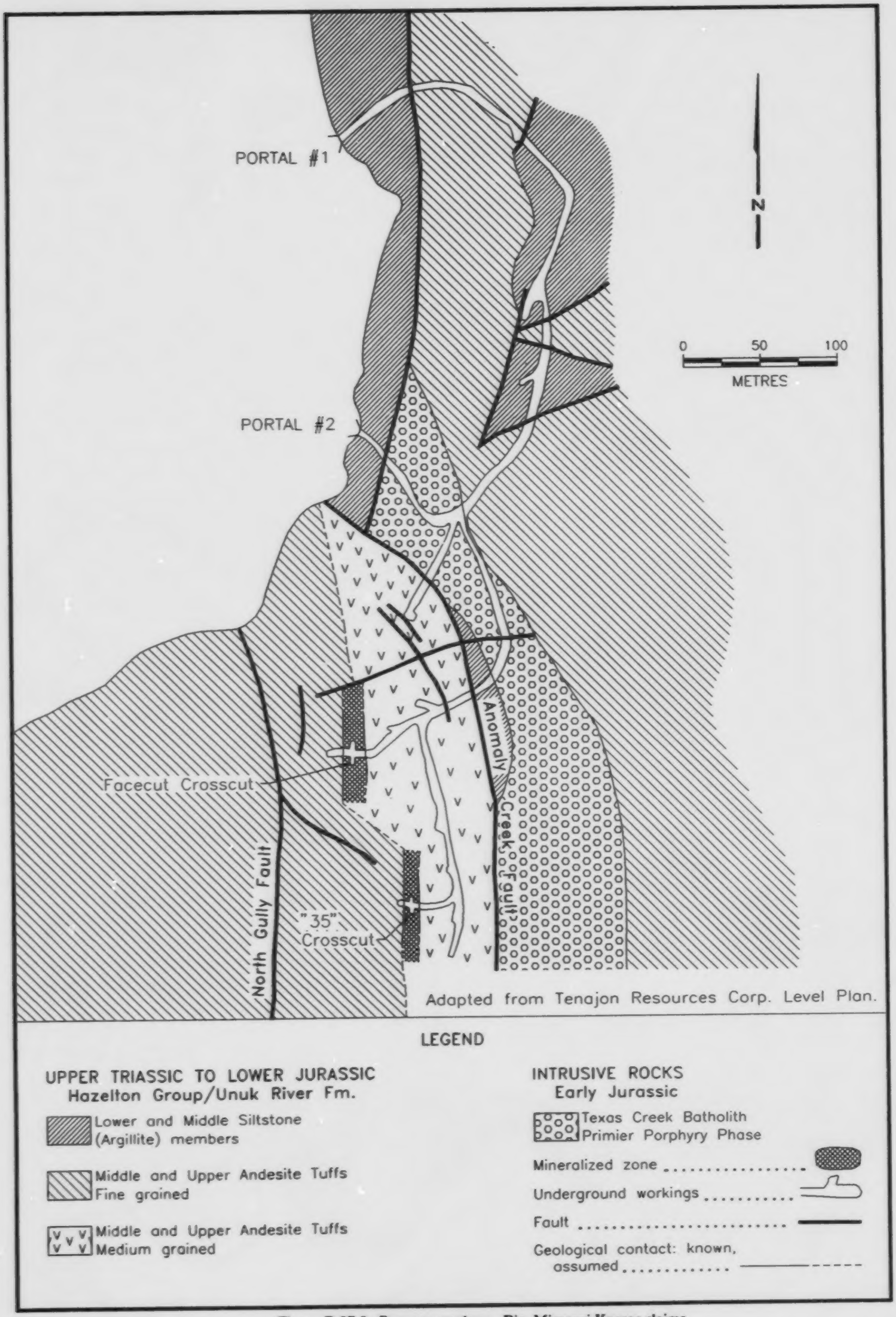
PORTAL #1
PORTAL #2
N
0 50 100
METRES
Facecut Crosscut
"35" Crosscut
North Gully Fault
Anomaly Creek Fault
Adapted from Tenajon Resources Corp. Level Plan.
LEGEND
UPPER TRIASSIC TO LOWER JURASSIC
Hazelton Group/Unuk River Fm.
Lower and Middle Siltstone (Argillite) members
Middle and Upper Andesite Tuffs Fine grained
Middle and Upper Andesite Tuffs Medium grained
INTRUSIVE ROCKS
Early Jurassic
Texas Creek Batholith Primier Porphyry Phase
Mineralized zone
Underground workings
Fault
Geological contact: known, assumed

Figure B-27-3. Property geology - Big Missouri Kansas claims.

1981-82 Esso Resources Canada Limited completed surface geological mapping, a soil geochemistry survey, an IP survey, trenching and 36 drill holes (McGuigan, 1981; Dawson and McGuigan, 1982).

1985-86 Tenajon Silver Corporation completed four diamond-drill holes (Dean, 1986) and attempted to collar an adit.

1987 Tenajon Silver Corporation commenced an adit in late 1987, and continued with surface drilling for a total of 3810 metres in 23 holes.

RECENT ACTIVITY

UNDERGROUND DRIFTING

In 1986 an attempt was made to drive an adit eastward below the original surface discovery, the Facecut zone. Problems with unconsolidated material on steep topography necessitated moving the portal 300 metres north. In November 1987 Portal No. 1 (Figure B-27-2) was collared at 800 metres elevation and was driven in an arcuate manner to crosscut known faults at right angles (M. Beaulne, personal communication, 1988). About 270 metres from the portal, a gouge-filled fault zone was intersected oblique to the drift. Unstable conditions required stepping back 25 metres and again driving toward the Facecut zone. At 490 metres from the portal the drift cut a major fault zone containing sand, boulders and water. The ground proved totally unstable and necessitated a stepback of 75 metres where a ventilation drift was run to the surface, creating Portal No. 2 the present main underground access. Drifting toward the Facecut zone then continued. At 190 metres south of Portal No. 2 the drift cut the zone. At this point a subdrift was driven in mineralization extending 10 metres to the north and 5 metres to the south of the main drift.

East of the crosscut, the main drift was extended southward 100 metres. A 20-metre crosscut was driven westward toward the projected southern extension of the mineralized zone. It intersected the "35" zone which may be the southern extension of the Facecut zone.

UNDERGROUND DRILLING

Seven drill stations were established in the drift connecting the Facecut and "35" zone cross cuts and running subparallel, but 30 metres east of the main mineralized trend. Thirty six holes, totalling 3333 metres, were drilled westward in a fan pattern from these stations. The holes tested for the southerly extension of the Facecut zone, the extent of the "35" zone and the up and down-dip limits to mineralization. Other holes tested ground conditions along the line of the ventilation drift and in the vicinity of the Anomaly Creek fault.

SURFACE EXPLORATION

A surface geological mapping program centred on the Big Missouri and Kansas claims. The southern Kansas zone (Figure B-27-3) was the focus of an extensive surface drilling program which consisted of 23 holes for a total of 4830 metres. Late in the season two new zones were identified, the West Kansas and Anomaly zones. Fourteen diamond-drill holes tested the Kansas zone, five drill holes cut the West Kansas zone and four holes intersected the Anomaly zone.

REGIONAL SETTING

The Silver Butte property lies within what Grove (1986) has termed the Stewart complex. This volcanic complex is within the Intermontane Belt, on the western edge of the Stikine terrane adjacent to the Coast plutonic complex. The region contains rocks ranging in age from late Paleozoic to Quaternary. Permian carbonates and Triassic volcanics form the basal units and are overlain by volcanics and sedimentary rocks of the early to middle Jurassic Hazelton Group. Bowser Lake Group sediments of late Jurassic age overlie the Hazelton Group. Late Triassic to early Jurassic intrusive activity (Alldrick, 1986) was followed by moderate deformation and regional metamorphism in the Cretaceous. Stocks and dykes intruded the region in the early to middle Eocene.

PROPERTY GEOLOGY

Three main rock types are exposed on the property: argillites and andesites of the Hazelton Group and Texas Creek granodiorite (Figures B-27-2 and 3). The argillite is carbonaceous and thinly bedded with occasional intercalations of black chert and grey lapilli tuff. These black argillites are thought to be east dipping and may be complexly deformed. They are the oldest rocks exposed, equivalent to Alldrick's (1985) upper siltsone member of the Unit 1 andesite sequence (R. Britten, personal communication, 1988). The andesites lying above the argillites were the principal unit encountered in drifting. They correlate with the upper andesite tuffs of Alldrick's stratigraphy and may be the extrusive equivalent of the Premier porphyry dykes (R. Britten, personal communication, 1988). Typically the rock is a pale to dark green andesitic tuff. It varies locally from a fine to medium-grained tuff to a welded ashfall tuff, to a lapilli-stone tuff, to a flow breccia (M. Beaulne, personal communication, 1988). It is often bleached pale green along fault structures. Both a fine-grained and a medium-grained massive andesite were identified with the contact between them often mineralized and silicified. The third rock unit is a porphyritic granodiorite, the Premier porphyry phase of the Texas Creek batholith, which contains megacrysts of orthoclase, plagioclase and hornblende within a coarse-grained groundmass. This unit intrudes the other units on the north and to the east of the Anomaly Creek fault (Figure B-27-3). The andesite and porphyritic granodiorite are associated with a subaerial volcanic centre of early Jurassic age centred in the Big Missouri - Premier area (Alldrick, 1989).

Rocks in the southeastern part of the property are folded about a north to northwest-trending axis and are affected by major post-mineral faulting. The Anomaly Creek, and North Gully faults are subparallel and arcuate northwest to south-trending structures (Figure B-27-3). Faults divide the property into three west-dipping (45° to 60°) segments. Right-lateral oblique slip along the faults does not appear to have significantly offset mineralization except on the Anomaly Creek fault. This local structure is a reflection of a larger regional right-lateral strike-slip shear regime.

MINERALIZATION AND ECONOMIC GEOLOGY

Five mineralized zones have been identified on the property (Figure B-27-2): Facecut, "35", West Kansas, Kansas and Anomaly. The Facecut and "35" zones have been explored by surface drilling and underground drifting. Surface drilling has identified the other three zones.

FACECUT ZONE

Sulphide mineralization occurs in the Facecut zone in a quartz-carbonate stockwork associated with the contact between fine and coaser grained andesites. The zone geometry is irregular with predominately subvertical to steep easterly dips, although variations in the vicinity of the crosscut suggest structural complexity. Sulphides comprise 25 per cent or more of the zone and consist of pyrite, chalcopyrite, sphalerite and galena. Mineralized widths of 2 metres and greater are known to extend eastward, down dip, 100 metres to the 750-metre level, where the zone is offset by the Anomaly Creek fault. The zone trends 350 degrees, exhibits sporadic grades to the north and may merge with the "35" zone to the south.

Pervasive potassium feldspar alteration is associated with the quartz-carbonate stockwork and envelopes the lenses of massive sulphide mineralization (Britten, personal communication, 1988). The mineralization and associated alteration are hosted by the andesitic tuffs which commonly contain less than 2 per cent finely disseminated pyrite.

Two channel samples, one each from the north and south walls of the crosscut through the Facecut zone, returned an average assay of 8.9 grams per tonne gold, 486.8 grams per tonne silver, 2.7 per cent copper and 7.1 per cent zinc over 2.7 metres (George Cross Newsletter, 1988, No. 151, page 2).

Two grab samples from the subdrift within the Facecut zone indicate that anomalous values in mercury, arsenic and antimony are associated with the economic mineralization (Table B-27-1).

"35" ZONE

The host rocks, alteration and mineralization in the "35" zone are similar to the Facecut zone and may well be an extension of it (R. Britten, personal communication, 1988). Widths of mineralization are reported between 2 and 12 metres; known strike length is about 50 metres, trending approximately 350 degrees, with an 80 degrees easterly dip. Assay results from the "35" crosscut were very even across the width of the zone. Channel sampling averaged 30.3 grams per tonne gold (uncut) and 83.3 grams per tonne silver across a true width of 10 metres. Results from underground drilling vary between 4.8 grams per tonne gold over 1.2 metres to 21.5 grams per tonne across an 8.1-metre intercept. At depth, the "35" zone is offset an unknown distance by the Anomaly Creek fault; it is open to the south.

TABLE B-27-1

Field No.	Au ppb	Ag ppm	Cu %	Pb %	Zn %	Co ppm	Ni ppm	Mo ppm	Hg ppm	As ppm	Sb ppm
MLM50	15720	182	0.42	0.39	5.13	22	2	16	313b	248	150
MLM51	1690	158	0.41	6.0	2.5	6.0	2.0	6.0	6.0	150	22

MLM50 - grab sample - sphalerite, pyrite, galena, as patches in a quartz-carbonate breccia.

MLM51 - grab sample - galena, pyrite, sphalerite, as patches in a quartz-carbonate breccia.

KANSAS ZONE

Fourteen surface drill holes have defined the Kansas zone which is located approximately 150 metres south of the Facecut and "35" zones. It is 200 metres long with widths varying between 1.5 and 13.25 metres. The zone has a 30 degree east dip and a known down-dip extension of 100 metres. Minor sphalerite and galena, less than 1 per cent total sulphides, occur in quartz-carbonate veinlets and breccia carrying gold and silver. The fine-grained andesite host exhibits intense silicif-ication and potassium feldspar alteration.

Better intersections have returned 10.0 grams per tonne gold, 27.5 grams per tonne silver over 5.75 metres and 14.6 grams per tonne gold, 16.1 grams per tonne silver over 7.5 metres (W. Melnyk, personal communication, 1989).

WEST KANSAS ZONE

Five drill holes west of the Gully fault have outlined a zone 170 metres long striking north with a 60 degree west dip. Two drill holes have intersected discrete veins with quartz, carbonate, sphalerite and galena. The gold and silver values are locally spectacular, for example an intersection with centimetre-size aggregates of visible gold returning assays of 93.9 grams per tonne (uncut) and 50.5 grams per tonne silver over an apparent true thickness of 5.5 metres. The andesitic host rock has weak chloritic alteration.

ANOMALY ZONE

This zone is located to the east of the Anomaly Creek fault. Three holes intersected mineralization in a zone 70 metres long, with a steep easterly dip. Quartz, carbonate and sulphides occur in a distinctly veined zone over a 2-metre true thickness. Assay values run up to 16.9 grams per tonne gold and 7.5 grams per tonne silver over a 2 metre true thickness.

ORE RESERVES

For the purpose of calculating ore reserves Esso Minerals Canada considers the Facecut and "35" zones as a single deposit. Probable and possible reserves for the Facecut, "35" zones and Kansas zones, open along strike and to depth, are estimated at 279 400 tonnes averaging 17.3 grams per tonne gold (uncut) and 36.7 grams per tonne silver.

DISCUSSION

There are two styles of mineralization on the property:

- high-sulphide, base metal rich gold mineralization in the Facecut and "35" zones.
- low-sulphide gold-rich mineralization in the Kansas zone.

These are consistent with the two main vein types at Silbak-Premier.

The Silver Butte mineralization is commonly spatially related to the contact between a fine-grained and a coarser grained andesite but locally is clearly discordant and occurs both above and below the contact (Britten, personal communication, 1988). The surface alteration at Silver Butte is characterized by inner areas of quartz-sericite or pervasive silicification surrounded by chloritic alteration. At depth, pervasive potassium feldspar alteration is associated with the quartz-carbonate stockwork ore zones.

ACKNOWLEDGMENTS

The author wishes to thank Ron Britten, Walter Melnyk and Micheal Beaulne of Esso Minerals Canada for the time they set aside to answer questions and conduct underground and surface tours. A field trip in October 1988, led by Dani Alldrick and Bob Anderson, proved most helpful in placing the property within a regional setting.

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TELEGRAPH CREEK 104G

TROPHY: (PTARMIGAN ZONE)

(Fig. B1, No. 28)

By V.M. Koyanagi, S.M. Heinrich, and J.M. Logan

LOCATION:	Lat. 57°10′ Long 131°15′ 104G/3 LIARD MINING DIVISION. Approximately 90 kilometres south of Telegraph Creek, in the headwaters of the South Scud River, at UTM coordinates 362150E, 6337850N.
CLAIMS:	TROPHY 1-4.
ACCESS:	By fixed-wing aircraft from either Dease Lake or Bronson Creek to the Scud River air strip at the confluence of the Scud and Stikine Rivers, and then by helicopter 25 kilometres east to the property.
OWNER/OPERATOR:	CONTINENTAL GOLD CORPORATION.
COMMODITIES:	Gold, silver, copper, lead, zinc.

EXPLORATION HISTORY

The property was originally staked and explored in the early 1960s by the BIK Syndicate (Silver Standard Mines Limited, McIntyre Porcupine Mines Limited, Kerr Addison Mines Ltd.) following the discovery of the large copper-gold porphyry deposit at Galore Creek in 1955 by Hudson Bay Mining & Smelting Co. Ltd. United Minerals Services Limited staked the Trophy claims in 1987 and later sold them to Continental Gold Corporation which undertook an extensive exploration program of geological mapping (1:10 000 regional program; 1:2500 Trophy claims), sampling, and diamond drilling (2834 metres in 16 holes) during the 1988 field season.

Mapping in the region by the Geological Survey of Canada began in 1924 (Kerr, 1948a, b). This was followed by J.G. Souther's 1:250 000-scale geological mapping of the Telegraph Creek map sheet (104G) in 1956 (Souther, 1971) and additional work by J.W.H. Monger (1970, 1977) and R.G. Anderson (1984, 1989). Between 1973 and 1975, A. Panteleyev of the British Columbia Geological Survey Branch carried out mapping in the area in conjunction with a deposit study of Galore Creek (Panteleyev, 1975, 1976, 1977). In 1988 J.M. Logan and D.A. Brown completed a 1:50 000-scale mapping and sampling program of NTS map sheets 104G/3, 4, 5, and 6 (Logan and Koyanagi, 1989; Brown and Gunning, 1989). A National Geochemical Reconnaissance map of the Telegraph Creek map sheet (BC RGS 19, GSC Open File 1646) was also released in 1988.

REGIONAL SETTING

The Trophy property is located along the western margin of the Intermontane Belt, and is underlain by rocks of the Stikine terrane. The area is dominated by Paleozoic rocks of the Stikine assemblage, Upper Triassic stratigraphy of the Stuhini Group, and sediments of probable Bowser Lake Group affinities. Plutonic rocks of Mesozoic to Tertiary age intrude all stratified rocks in the area.

The Stikine assemblage includes rocks of Early to Middle Devonian, Mississippian, and Permian age (Logan and Koyanagi, 1989). It consists of metavolcanic and metasedimentary rocks capped by a thick sequence of Permian platformal limestones. These rocks form a north-trending belt to the west of the Trophy claims.

Middle Triassic sediments (containing the fossil *Daonella cf. degeeri* Boehm) conformably overlie Permian limestone and underlie the Upper Triassic Stuhini Group which consists of a thick sequence of flows, tuffs and volcanic breccias with interbedded siltstones and argillites. These Triassic rocks form a volcanic edifice centered about the Galore Creek deposit.

Jurassic sediments, in fault contact with Stuhini volcanics, outcrop southeast of the Trophy property. These sediments are characterized by thickly bedded maroon and green conglomerates with interbedded fossiliferous sandstones, siltstones and thinly laminated limy argillites.

Intrusive episodes within the region are represented by: Late Triassic to Middle Jurassic Hickman plutonic rocks; Early to Middle Jurassic Galore Creek syenites; Jurassic to Tertiary Coast Range plutons; and Tertiary plugs and bimodal dykes.

PROPERTY GEOLOGY

The Ptarmigan zone is a roughly elliptical, heterolithic breccia measuring 400 by 200 metres, straddling the contact between Middle Triassic

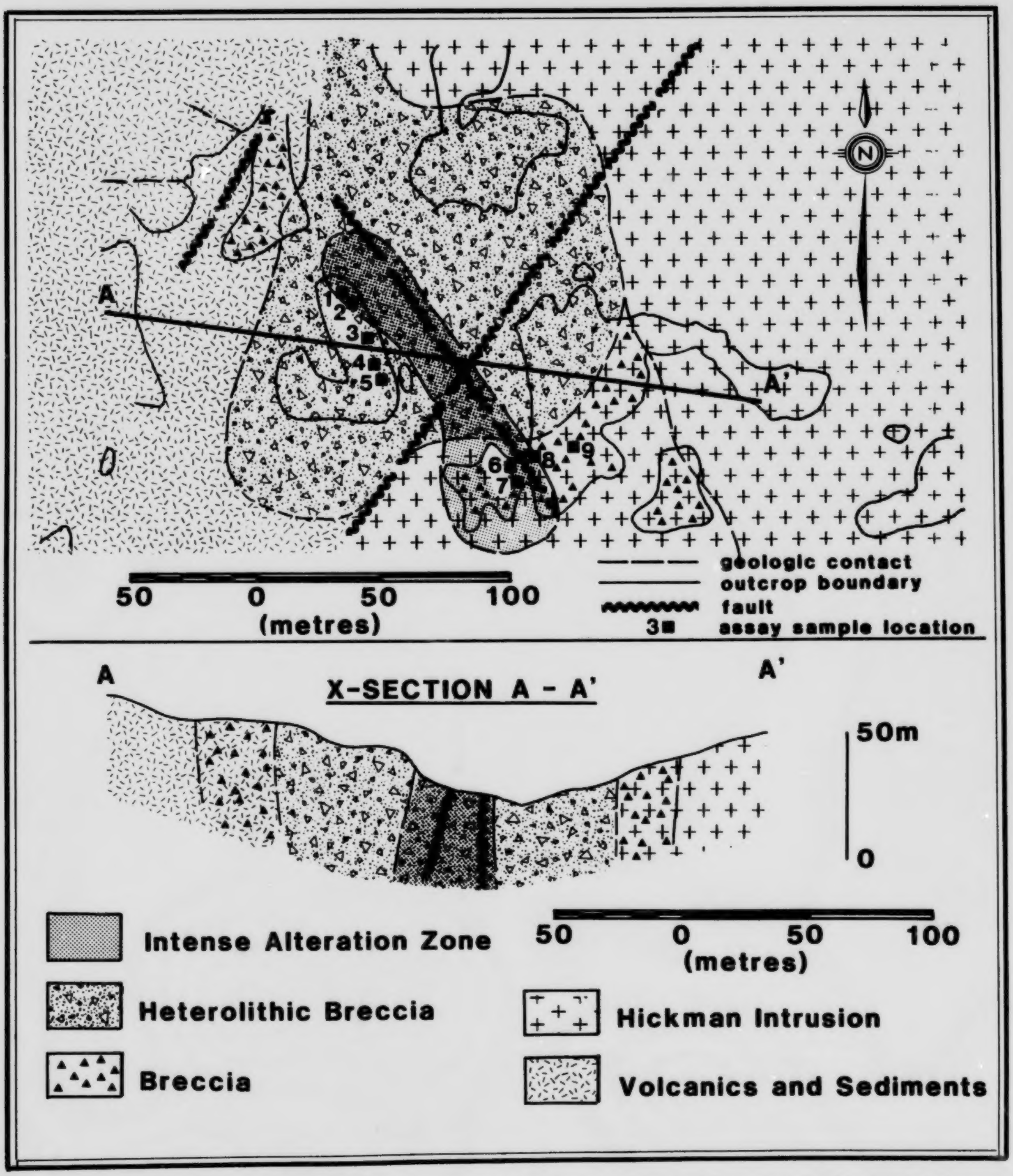
A
A'
1
2
3
4
5
6
7
8
9
N
50 0 50 100
(metres)
geologic contact
outcrop boundary
fault
3■ assay sample location
X-SECTION A - A'
50m
0
Intense Alteration Zone
Heterolithic Breccia
Breccia
Hickman Intrusion
Volcanics and Sediments

Figure B-28-1. Geology, sample locations, and cross-section of the Ptarmigan zone, Trophy property (from Continental Gold Corporation, 1988).

volcanics and sediments, and monzodiorites of the Late Triassic to Middle Jurassic Hickman batholith. These units are brecciated near the contact with the heterolithic breccia. The zone is centered on the intersection of major northeasterly and northwesterly trending faults (Figure B-28-1).

The heterolithic breccia weathers bright yellow and orange, and typically contains angular fragments of augite porphyry, monzodiorite, chert, feldspar porphyry, and fragments of the monzodiorite breccia (Plate B-28-1). The breccia matrix is replaced by iron carbonate, chalcedonic quartz and calcite with disseminated sulphides. The monolithic intrusive shatter breccia consists of large angular fragments of the Hickman monzodiorite (Plate B-28-2), and, within the altered zone, contains a mineralized quartz-iron carbonate matrix (Plate B-28-3). The monolithic volcanic breccia is composed of fragments of intermediate volcanics and is less mineralized and weakly altered.

Plate B-28-1. Mineralized quartz-carbonate veins hosted within heterolithic breccia (foreground). Fragment lithologies include augite porphyry, monzodiorite, chert, feldspar porphyry, and fragments of monzodiorite breccia. Altered Middle Triassic volcanics (cliff) are visible in the background.

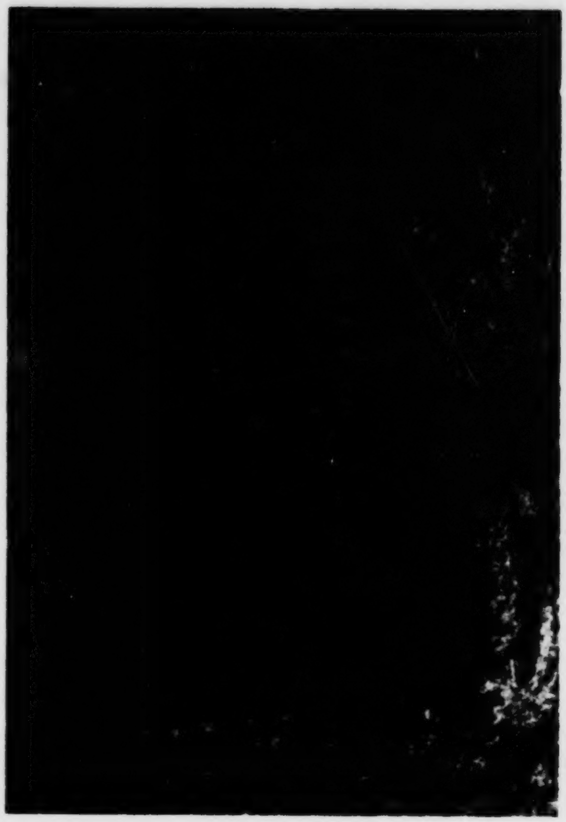

Plate B-28-2. Angular monzodiorite breccia blocks are locally aligned and dip southward into the zone. Alteration is weak with minor carbonate and pyrite mineralization.

ALTERATION

The Ptarmigan zone is exposed in a north-trending cirque and is easily visible from the air as a yellow-orange rusty alteration zone. The intense alteration extends from within the heterolithic breccia into the monolithic intrusive breccia and is characterized by pervasive, moderate silica and carbonate alteration, and intense sericitization. The zone is structurally controlled and has a trend of 140 degrees. Alteration minerals include quartz, sericite, calcite, ankerite, chlorite, kaolinite, jarosite, goethite and scoradite.

MINERALIZATION

Mineralization is primarily hosted by intensely sericitized, heterolithic and monolithic breccias. Sulphide-rich stockwork quartz-carbonate veins carry elevated gold values (Plate B-28-3). Mineralization is related to northeast and northwest-trending faults and

TABLE B-28-1. ANALYTICAL RESULTS: TROPHY PROPERTY / PTARMIGAN ZONE (VALUES IN PPM EXCEPT AS NOTED)

MAP NO.	HOST ROCK	SAMPLE DESCRIPTION	Au (ppb)	Ag	Cu	Pb	Zn	As	Sb
1	heterolithic breccia	silicified, gossanous wallrock along narrow quartz-carbonate vein	1740	139	182	0.37%	0.44%	0.41%	230
2	heterolithic breccia	mineralized quartz-carbonate vein with massive and disseminated galena, sphalerite, pyrite, arsenopyrite, and tetrahedrite; vein width up to 4.0 cm trending 035/90	5550	775	690	1.20%	1.51%	1.73%	830
3	heterolithic breccia	sericite-altered, silicified breccia with quartz-carbonate vein stockwork; abundant limonite and disseminated pyrite with galena and tetrahedrite in thin veinlets	4300	205	296	1.18%	0.33%	6.00%	230
4	heterolithic breccia	silicified sericite-altered breccia with quartz-carbonate vein stockwork; abundant limonite and disseminated pyrite with minor tetrahedrite, sphalerite and galena; local malachite stain	8700	390	193	0.31%	280	0.13%	230
5	heterolithic breccia	same as sample 4 above	4240	310	340	0.51%	2.12%	0.18%	268
6	Hickman monzodiorite	quartz-carbonate-sericite vein with disseminated sphalerite, pyrite, galena and arsenopyrite within a gouge zone ±5.0 m in length	3170	510	680	4.05%	11.1%	0.12%	255
7	Hickman monzodiorite	sericite-ankerite-altered gouge zone containing disseminated pyrite and tetrahedrite; zone width 0.5 m crosscut by a 035° fault structure	11050	210	470	1.23%	0.33%	0.58%	390
8	Hickman monzodiorite	silicified, brecciated monzodiorite; quartz-carbonate veinlets, stockwork and matrix containing disseminated pyrite and minor sphalerite	116	12	213	0.18%	510	270	6
9	Hickman monzodiorite	bleached, altered shatter breccia with iron carbonate, quartz and pyrite occupying stockwork veinlets and matrix replacements	360	6	156	138	137	0.22%	3

Plate B-28-3. The monzodiorite intrusive breccia is bleached and weakly altered with iron-carbonate, quartz, and pyrite occupying stockwork veinlets and matrix replacements. Grab samples indicate erratic gold values less than 1 g/t. Values from a fault zone within this breccia returned values to 11 g/t gold.

fractures. Structures paralleling these are common throughout the region and warrant further exploration for similar precious metal mineralization. Veins are typically 0.5 to 1.0 centimetre wide and contain massive and disseminated pyrite, sphalerite, galena and pyrrhotite, with lesser amounts of chalcopyrite, arsenopyrite and tetrahedrite. Trace amounts of native gold from a mineralized vein were seen in polished thin section. Lead-isotope dating suggests a Tertiary mineralizing event. Galena lead from the Ptarmigan zone has isotope ratios similar to Tertiary modelages (J. Gabites, personal communication, 1988).

A fault zone trending 140/60SW cuts the monolithic intrusive breccia. A sample from this zone returned a gold assay of 11.05 grams per tonne. A grab sample of a mineralized vein within the heterolithic breccia returned gold values of 5.55 grams per tonne while quartz-carbonate stockwork within the breccia yielded an assay value of 8.70 grams per tonne gold. Altered heterolithic breccia with disseminated pyrite returned values of 1.74 grams per tonne gold (Table B-28-1).

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SKAGWAY 104M

TP: MAIN SHOWING

By K. Mountjoy

(Fig. B1, No. 29)

LOCATION:	Lat. 59°41′ Long. 134°41′ 104M/10 ATLIN MINING DIVISION. Located on the southwest side of Teepee Peak approximately 50 kilometres west of Atlin.
ELEVATION:	1890 metres.
CLAIM:	TP Mineral Claim: Main Showing.
ACCESS:	By helicopter from Atlin.
OWNER	Archer, Cathro and Associates Ltd.
OPERATOR:	CYPRESS GOLD (CANADA) LIMITED.
COMMODITIES:	Gold, cobalt.

EXPLORATION HISTORY

Exploration in the region has a history dating as far back as the early 1890s. Prospectors travelling to the Klondike goldfields via White Pass prospected along the route. These early activities led to the discovery and production of gold from quartz veins in such mines as the Engineer and Bighorn in British Columbia, and gold and silver from veins at the Venus and Bigthing mines immediately to the north in the Yukon Territory. There is no record of early work in the area of the TP claim, but old trenches and delapidated cabins are found in the area.

Two mineral occurrences, the Main and Camp showings, were discovered by Trigg, Woollett, Olson Consulting Ltd. while exploring on behalf of Texaco Canada Resources Ltd. in 1982, and were staked as the TP claim. A limited amount of prospecting, rock and stream-sediment geochemical sampling and reconnaissance geological mapping was completed on and around the claim.

More detailed exploration was conducted in the following year, including geological mapping at 1:1000 scale, trenching and geophysics. Ownership of the TP claim was transferred to Archer, Cathro and Associates in 1987 and subsequently optioned to Cypress Gold (Canada) Limited.

CURRENT ACTIVITY

During 1988 Cyprus Gold (Canada) Limited expanded the property by staking approximately 300 additional units. Follow-up work on aeromagnetic anomalies included geological mapping and lithogeochemical sampling.

GEOLOGY

REGIONAL SETTING

The regional geology has been recently described by Mihalynuk *et al.* (1988, 1989a, 1989b). The TP claim lies within a northwesterly trending belt of pre-Permian Boundary Ranges metamorphic rocks. These rocks are the oldest exposed in the region, and are composed predominantly of schists with lesser marble, quartzite and orthogneiss. Multiple episodes of veining and mesoscopic faults suggest a long and variable metamorphic and deformational history.

The Boundary Ranges suite is intruded by a tabular, northwest-trending hornblendite body of probable late Jurassic to early Cretaceous age. The tabular hornblendite consists of two parts: a main body, southeast of the TP claim, approximately 9 kilometres long by 2 kilometres wide, and a extension northwest of the claim approximately 3.5 kilometres long by 2 kilometres wide. Composition varies from 95 per cent very coarse-grained black hornblende to medium-grained hornblende diorite.

The Teepee Peak volcanics, a sequence of probable middle to upper Jurassic rocks 1500 to 2000 metres thick, outcrop only at the higher elevations on Teepee Peak, where they unconformably overlie, or are strucurally juxtaposed with the older metamorphic rocks. Locally the base of the Teepee Peak volcanics is a sharp angular unconformity. These volcanics are subdivided into four units (Mihalynuk *et al.*, 1989a, b): a lowermost basal breccia/conglomerate, a rhyolite flow, a hornblende-feldspar-porphyry breccia and a heterolithic lapilli tuff.

Early and late Cretaceous granitoids of the Coast Complex outcrop approximately 4 kilometres southwest of the TP claim (Mihalynuk *et al.*, 1989b). The early Cretaceous intrusive is a grey to white, medium-grained foliated granodiorite/tonalite with mafics including biotite, sphene, and sparse megacrystic hornblende. A late Cretaceous granite is more extensively exposed and surrounds the earlier foliated granodiorite. This unfoliated, medium to coarse-grained pink granite is comprised of perthitic alkali feldspar, plagioclase, quartz, biotite (forming fine to medium-grained euhedral booklets) and alkali feldspar megacrysts up to 5 centimetres long.

The Teepee Peak stock, a small late Cretaceous to Tertiary body approximately 2.5 kilometres in diameter, is exposed 750 metres northeast of the TP claim. It is a medium-grained granodiorite to tonalite, composed of quartz, alkali feldspar, altered plagioclase, biotite and hornblende. The eastern contact is chilled, over a width of approximately 20 centimetres. Pyrophyllite-molybdenite veins occur at the southeastern margin of the stock.

Late Cretaceous pyroxenite dykes crop out 1 kilometre southwest of the TP claim. These compact dykes are 5 to 25 metres thick, possibly reaching 120 metres thick, charcoal grey, red weathering and exhibit an internal fabric parallel to their contacts. They are composed of pristine medium-grained pyroxene, magnetite and phlogopite.

Lhotka and Olsen (1983) report that mineralization at the TP claim may be related to the so-called Teepee fault. On surface this fault trends northwesterly, cutting the pre-Permian Boundary Ranges suite southeast and presumably northwest of Teepee Peak. Two en echelon fracture zones, approximately 80 metres long, crosscut magnetite and calcsilicate-calcite skarns within the Boundary Ranges suite. Slickensides on the northeastern fracture indicate sinistral motion.

GEOLOGY OF THE TP CLAIM: MAIN SHOWING

The oldest rocks exposed at the Main showing are Boundary Ranges metamorphics of probable late Proterozoic age. These are predominantly chlorite-actinolite schists and plagioclase-quartz-banded chlorite-actinolite schists. Biotite, muscovite and lesser garnet are minor constituents. Chlorite is typically more abundant and much finer grained than actinolite. Minor marble forms discontinuous beds about 10 metres thick. Where coarse grained the fabric is granoblastic with grains a millimetre or less in diameter. More typically, marble beds are fine to medium-grained and white, weathering orange, yellow or tan.

Dykes and thick sills of quartz feldspar porphyry, and lesser dykes of intermediate composition, border the skarn (Figure B-29-1). Their age is unknown although they must be younger than the Boundary Ranges suite which they all crosscut. Two phases of felsic intrusions are present; one occuring in the Teepee volcanics as blocks within the basal breccia/conglomerate, the other clearly crosscutting the breccia and younger volcanic rocks. In the southeast corner of the TP claim, quartz feldspar porphyries are crosscut by fine-grained green dykes of intermediate composition. Lens-shaped quartz feldspar porphyry bodies, which may be banded and contain sparse angular xenoliths up to several centimetres in diameter, are exposed in the northern part of the property.

MINERALIZATION

The Main showing is a semiconcordant skarn-hosted magnetite-cobalt-gold-bearing deposit, approximately 200 metres long by 15 metres wide. The skarn comprises four zones: a magnetite zone, a calcsilicate-calcite zone, a clinopyroxene (diopside) zone and an epidote zone. The northwest end of the skarn consists dominantly of magnetite, pinching out to the north. The magnetite zone grades southwards into a calcsilicate-calcite zone and is bordered on the southwest by a clinopyroxene zone (Figure B-29-1). Gold and cobalt mineralization are found in the clinopyroxene and the adjacent magnetite zones.

MAGNETITE SKARN

The magnetite skarn is composed of brittle, massive magnetite replacing earlier calcsilicate-calcite skarn. Blocky polycrystalline aggregates are composed of small, fractured, anhedral to subhedral grains 0.6 to 20 millimetres in diameter. Diopside, actinolite, calcite and quartz occur as inclusions in magnetite and in interstices between grains. Calcite encloses massive aggregates of magnetite.

CALCSILICATE-CALCITE SKARN

The calcsilicate-calcite skarn is composed of garnet, diopside and calcite with or without actinolite and dolomite. Although variable, the overall texture is granoblastic to porphyroblastic. Garnets typically occur as fractured aggregates containing inclusions of diopside, actinolite and calcite. Diopside inclusions commonly have an iron oxide reaction rim. Individual garnets vary from euhedral to anhedral, frequently exhibiting sector twinning and concentric zoning. Diopside occurs as either subidioblastic or idioblastic grains forming monomineralic aggregates 0.5 to 2 millimetres in diameter, or as inclusions in garnet or calcite. Actinolite is present as bladed xenoblastic to

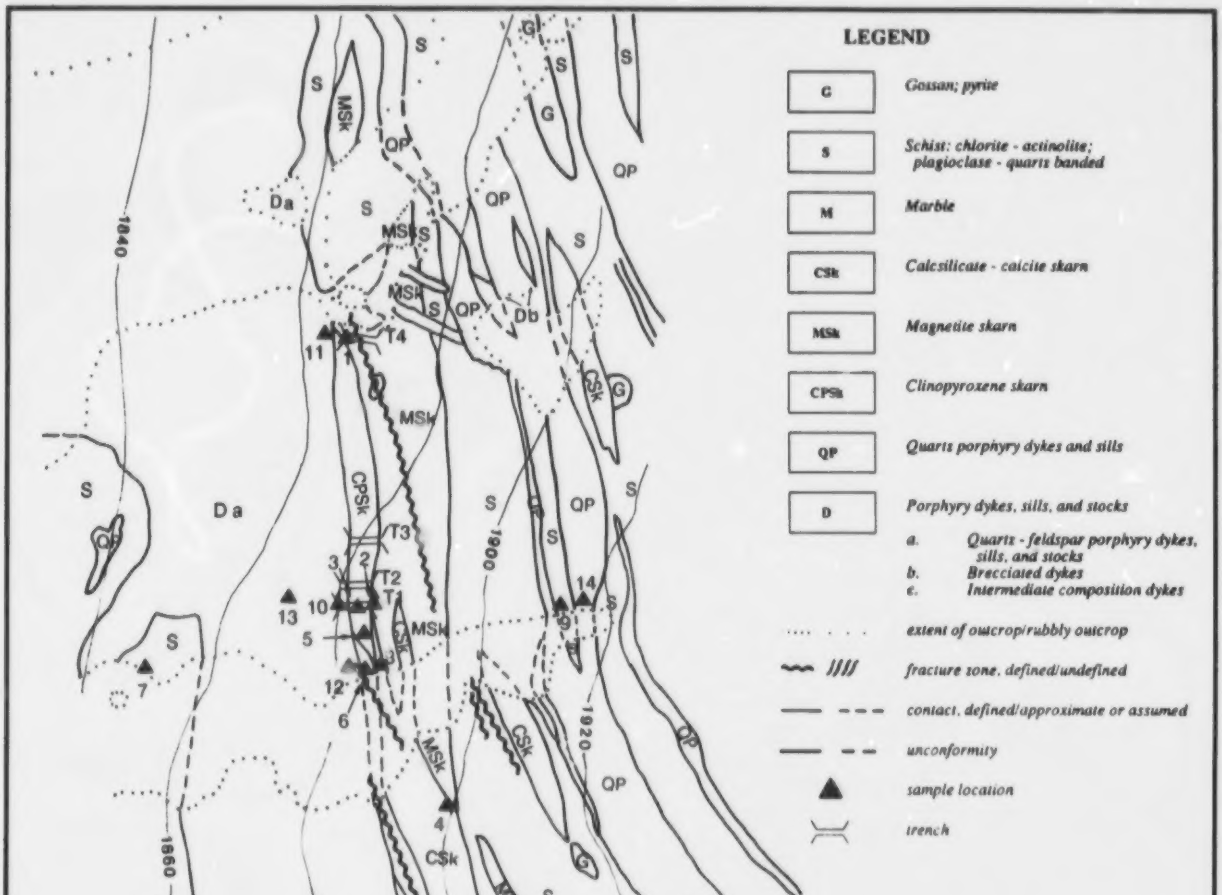
LEGEND
G Gossan; pyrite
S Schist: chlorite - actinolite; plagioclase - quartz banded
M Marble
CSk Calcsilicate - calcite skarn
MSk Magnetite skarn
CPSk Clinopyroxene skarn
QP Quartz porphyry dykes and sills
D Porphyry dykes, sills, and stocks
a. Quartz - feldspar porphyry dykes, sills, and stocks
b. Brecciated dykes
c. Intermediate composition dykes
extent of outcrop/rubbly outcrop
fracture zone, defined/undefined
contact, defined/approximate or assumed
unconformity
sample location
trench
N
0 10 20 30
metres
contour interval – 20 metres
1840
1860
1880
1900
1920
T1
T2
T3
T4
Da
Db
Dc
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

Figure B-29-1. Geology of the TP Main Showing area.

subidioblastic grains 0.2 to 3.5 millimetres long and, less commonly, as inclusions in calcite.

Calcite, with or without dolomite, is a dominant constituent of the calcsilicate-calcite skarn zone. It appears to be restricted to an early and a late stage of skarn formation. In contrast, dolomite is associated with calcite of the earlier stage of skarn formation only. Calcite and dolomite of the earlier stage occur as xenoblastic equidimensional interlocking grains forming a granoblastic framework. Late calcite occurs predominantly as inclusion-rich veins which crosscut earlier skarn phases.

Minor magnetite is locally present; magnetite grains are frequently partially altered to hematite along grain boundaries and pyrite may occur as inclusions.

CLINOPYROXENE SKARN

Columnar or bladed diopside in the clinopyroxene zone has a decussate texture. Diopside is conspicuously bimodal, forming bands with rapid, irregular changes in grain size. The smaller grains are 0.2 millimetre long, forming bands 1 to 2.25 millimetres thick. The coarser bands (2.25 to 5.0 millimetres thick) are composed of diopside grains 0.75 to 2.25 millimetres in diameter. Within the clinopyroxene zone, gold and cobalt arsenide mineralization is restricted to retrograde alteration zones composed of actinolite with interstitial magnetite, pyrrhotite, cobaltite and gold, with or without arsenopyrite and skutterudite. Erythrite is a common alteration product of the cobalt-bearing arsenides.

EPIDOTE SKARN

The epidote skarn is restricted to the peripheral quartz and quartz feldspar porphyry sills and dykes. The degree of epidote alteration is variable. Locally xenoblastic microcrystalline epidote grains form polycrystalline aggregates after euhedral clinopyroxene. Patchy epidote alteration of feldspar phenocrysts is displayed along grain boundaries and in fractures. Scattered epidote aggregates indicate alteration of groundmass feldspars.

ACKNOWLEDGMENTS

The writer would like to thank Cypress Gold (Canada) Limited, in particular Alvin Jackson and Rudi Durfeld, for their cooperation and assistance in providing information on the TP claim.

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ATLIN 104N

PICTOU (104N044)

(Fig. B1, No. 30)

By C.J. Rees

LOCATION:	Lat. 59°34′ Long. 133°40′ 104N/12E ATLIN MINING DIVISION. Located approximately 2 kilometres east of Atlin, immediately south of present-day airstrip and west of Pine Creek. Elevation 710 metres (2330 feet).
CLAIM:	PICTOU.
ACCESS:	Bush road off the Pine Creek road.
OWNER/OPERATOR:	HOMESTAKE MINERAL DEVELOPMENT COMPANY.
COMMODITY:	Gold.

INTRODUCTION

Exploration for lode gold in the Atlin area has continued intermittently since the discovery of placer gold on Pine Creek in 1898. Early recognition of the association of auriferous quartz with hydrothermally altered ultramafic rocks, particularly near contacts with volcanics and along major faults, has contributed to a long history of exploration and renewed interest in the past decade. This report describes the Pictou property, near the town of Atlin. Another property with similar features, the Yellowjacket claims on Pine Creek, was described by Lefebure and Gunning (1988).

EXPLORATION HISTORY

Early work on the property in 1900 was done on behalf of the owner, Lord Hamilton of London, England. This included a 7-metre shaft, a 2-metre adit and several open cuts. In 1931, T. Kirkland of Atlin located the Hudson Bay group of claims over the showings.

By 1968, the Lucky, Aud and Port groups (totalling 116 claims), the Pictou (Lot 5643) and Scarab (Lot 5644) claims, and mineral lease M32 were all acquired by T.O. Connolly who supervised a program of stripping and trenching. A bulk sample, shipped by Connolly, returned values of 342 grams per tonne silver, 0.33 per cent lead and 0.16 per cent zinc. Union Mountain Mines Ltd. was incorporated in October 1968 to carry out further exploration work on the property.

CURRENT ACTIVITY

The property was acquired by Homestake Mineral Development Company in 1987. They completed geophysical and geochemical surveys, surface trenching, five rotary drill holes, and 160 metres of diamond drilling in two holes in 1987 and 1988.

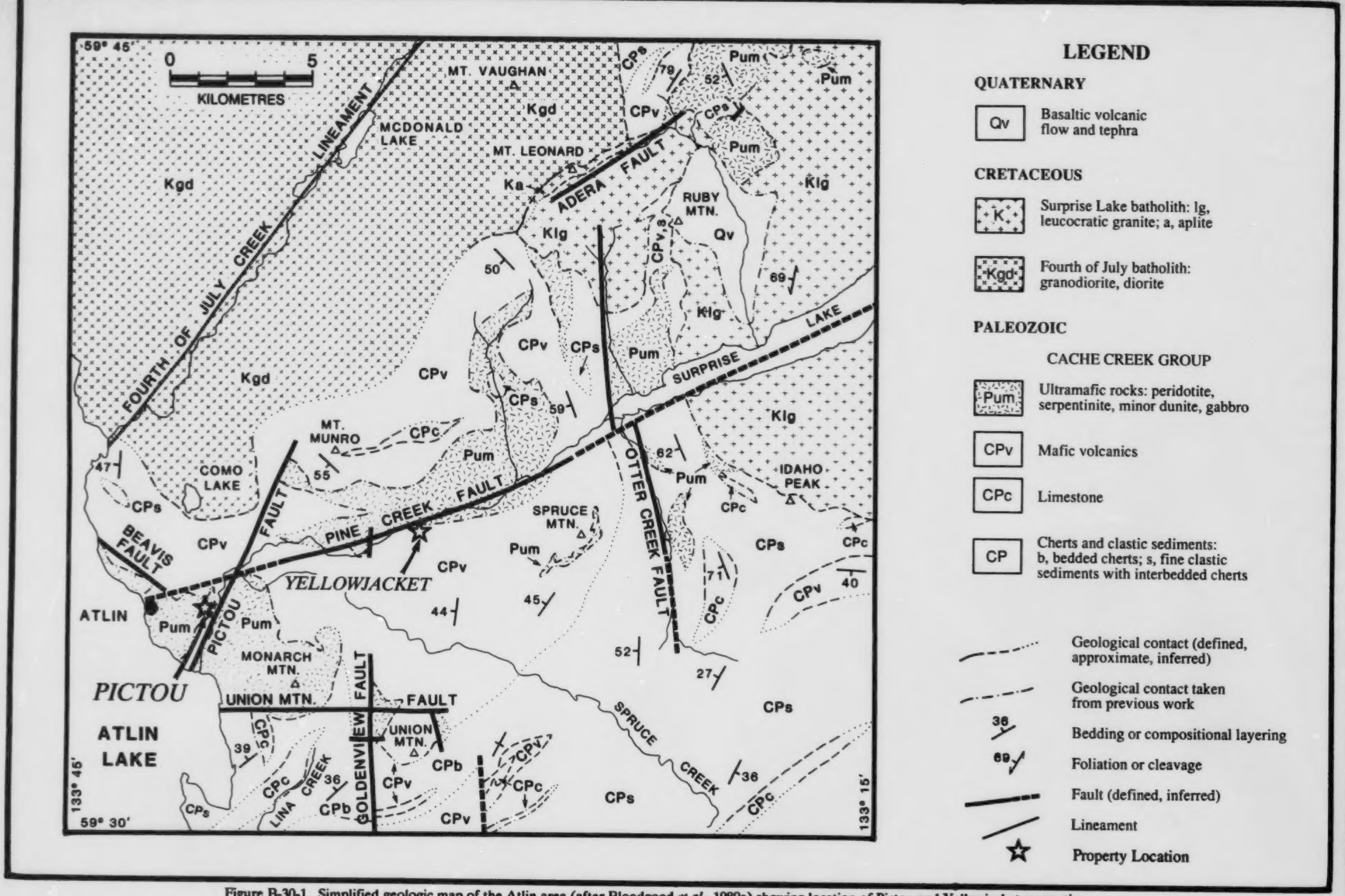
GEOLOGY

REGIONAL SETTING

The Pictou property is located within a large body of ultramafic rocks included in the upper Paleozoic Cache Creek Group (Figure B-30-1; Aitken, 1959; Monger, 1975), the principal component of the Atlin terrane in the northern part of the Intermontane Belt of the Canadian Cordillera. The Atlin terrane is separated by faults from the Stikine and Nisling terranes to the west and from Paleozoic and Mesozoic terranes to the east. Two systems of northerly and east-northeasterly trending faults are important in the area. The northerly trending Pictou fault (Bloodgood *et al.*, 1989a, b) lies immediately east of the Pictou property.

The Cache Creek Group in the immediate Atlin area consists of fine-grained siliciclastic rocks, argillites, cherts and limestone, which are overlain by mafic volcanic rocks. Metamorphic grade is subgreenschist. Faulting has disrupted stratigraphic continuity, although primary depositional features have been recognized. Truncation and imbrication of lithologies is characteristic of the Cache Creek Group. The Cache Creek Group is intruded by the Cretaceous(?) granitic to dioritic Fourth of July batholith and the Late Cretaceous Surprise Lake granitic batholith (Figure B-30-1).

The ultramafic rocks range from kilometre long linear bodies to pods and lenses a few metres in size. The nature of their emplacement is not known, but lithological contacts are extensively sheared and are interpreted as faults (Monger, 1975; Bloodgood *et al.*, 1989). The ultramafics are characterized by carbonate alteration, silicification and quartz veining. This listwanitic alteration and associated gold mineralization is pervasive along contacts with volcanic or sedimentary rocks. The listwanite alteration assemblage may be



59° 45'
0
5
KILOMETRES
FOURTH OF JULY CREEK LINEAMENT
MCDONALD LAKE
MT. VAUGHAN
MT. LEONARD
Kgd
Ka
ADERA FAULT
RUBY MTN.
Qv
Klg
CPv
CPs
Pum
CPv,s
SURPRISE LAKE
MT. MUNRO
CPc
COMO LAKE
FAULT
PINE CREEK FAULT
OTTER CREEK FAULT
SPRUCE MTN.
IDAHO PEAK
YELLOWJACKET
BEAVIS FAULT
ATLIN
PICTOU
MONARCH MTN.
UNION MTN. FAULT
UNION MTN.
GOLDENVIEW FAULT
CPb
LINA CREEK
SPRUCE CREEK
ATLIN LAKE
133° 45'
59° 30'
133° 15'
47
50
55
59
62
69
79
52
71
40
45
44
27
36
39
LEGEND
QUATERNARY
Qv Basaltic volcanic flow and tephra
CRETACEOUS
K Surprise Lake batholith: lg, leucocratic granite; a, aplite
Kgd Fourth of July batholith: granodiorite, diorite
PALEOZOIC
CACHE CREEK GROUP
Pum Ultramafic rocks: peridotite, serpentinite, minor dunite, gabbro
CPv Mafic volcanics
CPc Limestone
CP Cherts and clastic sediments: b, bedded cherts; s, fine clastic sediments with interbedded cherts
Geological contact (defined, approximate, inferred)
Geological contact taken from previous work
36 Bedding or compositional layering
69 Foliation or cleavage
Fault (defined, inferred)
Lineament
Property Location

Figure B-30-1. Simplified geologic map of the Atlin area (after Bloodgood *et al.*, 1989a) showing location of Pictou and Yellowjacket properties.

complexly zoned, but in general grades from serpentinite to talc-carbonate and quartz-talc-carbonate through quartz-carbonate-mariposite and quartz veins. Significant gold concentrations are restricted to quartz veins or fine stockworks (Ballantyne and MacKinnon, 1986); these veins are believed to be the source of the gold in the rich Tertiary and Quaternary placer deposits for which the region is famous.

Between 1898 and 1982 placer mining in the Atlin Mining Division had produced more than 19 000 kilograms (615 000 ounces) of gold (Debicki, 1984), 96 per cent of which was from the immediate Atlin area. The only recorded lode gold production was from two levels of the Imperial Mine, 6 kilometres northeast of Atlin, between 1900 and 1902. Average grades of 13.7 and 5.1 grams per tonne gold respectively, were recovered from 245 tonnes of ore mined on the upper level and 23 tonnes from the lower level. In recent years, exploration has located coarse gold hosted in quartz-carbonate alteration zones in properties such as the Yellowjacket on Pine Creek (Lefebure and Gunning, 1987), and on the Shuksan property (Troup and Wong, 1983).

PROPERTY GEOLOGY

The Pictou property is mostly underlain by ultramafic rocks which are subject to various degrees of listwanite alteration. Less altered ultramafic rocks consist of grey-brown weathering, very dark green, partly serpentinized peridotite. This rock has a distinctive knobby surface due to resistant orthopyroxene crystals up to 5 millimetres across, and local pyroxene-rich cumulate layers.

The alteration is pervasive and the iron-rich carbonate minerals weather bright orange-brown. The fresh rock is grey to creamy buff or pale grey-green, with a generally fine-grained sugary texture. Disseminated, dark green to black, millimetre-scale, relict serpentine and magnetite grains indicate that the rock was serpentinized before it was carbonatized (Newton, 1985). Mariposite is an important constituent of the alteration; talc is less common and there is a weak foliation where it occurs.

Thin carbonate veinlets, 1 to 10 millimetres wide, generally trend northeasterly and dip moderately to steeply southeast but also have other orientations. Some veins are continuous for several metres and the larger veins may contain open spaces and open space fillings lined with coarse euhedral carbonate crystals. Carbonate veinlets also occur as a breccia vein stockwork containing angular fragments (1 to 4 centimetres) of orange-weathering carbonatized host rock. Finely disseminated pyrite is a minor constitutent which is not easily detectable in outcrop but shows up on some polished surfaces.

Silicification and quartz veining are associated with the listwanite alteration. Variation in the degree of silicification occurs on a metre-scale and ranges from pervasive to patchy replacement by white quartz. Mariposite is associated with the most intense silicification which is pale grey or greenish grey with a chalcedonic texture locally.

Quartz veins 1 to 10 centimetres wide, accompany silicification but also occur associated with weak silicification. Zones of breccia with quartz matrix, 10 to 30 centimetres wide, contain clasts of silicified or carbonatized wallrock. These zones do not show evidence of fault movement. Quartz-filled veins are

TABLE B-30-1. ANALYTICAL RESULTS FROM THE PICTOU PROPERTY

Sample Number	Au g/t	Ag g/t	Cu ppm	Pb ppm	Zn ppm	Co ppm	Ni ppm*	Mo ppm	Cr ppm	Hg ppb	As ppm	Sb ppm	Rock Type
DVL87075a	<0.02	0.5	<10	<10	60	44	691	<5	993	20	130	12.7	a
DVL87077	5.70	445	665	411	158	49	450	<5	690	2000	860	850	a
136CR1	0.007	<0.5	9	19	40	—	0.18%	<8	—	12	—	2	b
136CR2	0.012	<0.5	17	5	42	—	0.11%	<8	—	27	269	24	c
136CR3	6.78	368	675	340	151	—	560	<8	—	280	851	670	d
136CR4	0.028	0.6	10	7	26	—	530	<8	—	35	—	7	e

** In weight per cent where shown.*

Rock types:
a: Quartz vein
b: Serpentinite, very weakly carbonatized. Typical of background values.
c: Pervasive carbonate alteration and veinlets (prevalent lithology).
d: Strong silicification, mariposite. About 1-2% sulphides.
e: Quartz-carbonate breccia vein/stockwork.
Reference: Bloodgood *et al.* (1989b).

common but larger crosscutting veins usually contain carbonate minerals. A well-developed sequence in vein fillings is characterized by coarse carbonate followed by coarse quartz or locally layered chalcedonic silica and, very locally, later carbonate infilling.

There is a notable positive correlation between the intensity of silicification and the occurrence of gold and sulphides, including pyrite, chalcopyrite, sphalerite, tetrahedrite and gersdorffite. Pyrite aggregates are a maximum of 8 millimetres across but generally sulphide grains are 1 to 2 millimetres in diameter. A sample from a strongly silicified zone with visible sulphides assayed 6.8 grams per tonne gold and 368 grams per tonne silver; a carbonate-altered sample returned values of 12 ppb gold, and a quartz-carbonate breccia vein, lacking visible sulphides, contained 28 ppb gold. Weakly carbonatized serpentinite from the periphery of the showing contained 7 ppb gold, typical of background values in the region. Table B-30-1 contains complete analytical results from samples collected on the Pictou property by B.C. Geological Survey Branch staff in 1987 and 1988 (Bloodgood *et al.*, 1989b).

Homestake's diamond-drill hole PL 88-01 (45 degrees/110 degrees) was logged to identify the variation in alteration with depth. Altered ultramafics in the first 30 metres, are followed by an intermittent fault zone, 30 metres thick, in altered volcanics with minor chert and argillite. The remainder of the hole is in altered and unaltered volcanics, with minor chert, argillite and a mafic intrusive. Disseminated pyrite is common in the altered volcanics; semimassive pyrite occurs locally.

Drill core intersections indicate the Pictou fault has strike of 020 degrees and dips 40 degrees west.

DISCUSSION

It is difficult to date the alteration, quartz veining, faulting, or gold mineralization in the Atlin area. Fault movement along ultramafic contacts may have provided conduits for hydrothermal fluids, leading to protracted and episodic alteration and veining (Ballantyne and MacKinnon, 1986). This may have begun in the late Paleozoic but several features in the region suggest that mineralization or gold remobilization may be more closely related to much later processes:

(a) The continuity of some of the larger (1 to 3 metres wide) gold-bearing quartz vein systems (traceable up to 2 kilometres; Ballantyne and MacKinnon, 1986) indicates that they post-date penetrative deformation; they may be related to the major fault systems which post-date Late Cretaceous or Tertiary intrusions.

(b) Rhyolitic porphyry dykes occur on the Beavis, Imperial, Yellowjacket and Anna properties and contain anomalous gold (Lefebure and Gunning, 1987) and the GV property (11 and 2.5 grams per tonne; Rich, 1985). These dykes are believed to be Cretaceous age.

(c) The discordant vein fillings and breccia veins at the Pictou property strongly resemble a high-level, epithermal system. Although their relationship to the gold mineralization has not been established, they do indicate a late stage of hydrothermal activity.

It is undetermined whether the source of the gold is the Cache Creek Group itself, or if it was introduced at a much later time. In either case, the presence of quartz veining and silicification, possibly related to Late Cretaceous and Tertiary large-scale faulting, appears to be an important control for gold mineralization.

SUMMARY

Quartz-carbonate (listwanite) alteration (±silicification, pyrite and mariposite) of Cache Creek Group ultramafic rocks on the Pictou property is extensive. Significant gold-bearing mineralization is present but is restricted to zones of intense silicification with visible sulphides. Typical values in the prevalent carbonate alteration (1 to 10 ppb) may be comparable to those in less-altered ultramafic rocks in the Atlin area (Ballantyne and MacKinnon, 1986; Table B-30-1).

The alteration is contained within the hangingwall of the moderately dipping Pictou fault zone, which may have provided a conduit for mineralizing hydrothermal fluids. Several phases of alteration may be present, including a possible late epithermal stage.

ACKNOWLEDGMENTS

Many thanks are due to Duncan MacIvor and Darcy Marud of Homestake Mineral Development Company for guiding field visits to the property, sharing ideas and information, and for making their drill core available.

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NOTES

McDAME 104P

ERIKSON MINE

(Fig. B1, No. 31)

By A.J. Sinclair
The University of British Columbia

LOCATION:	Lat. 59°15′ Long 129°37′ LIARD MINING DIVISION. 12 kilometres south of Cassiar townsite.	104P/4
ACCESS:	By road from Cassiar.	
OWNER:	Total Erickson Resources Ltd.	
OPERATOR:	ERICKSON GOLD MINING CORPORATION.	
COMMODITY:	Gold.	

PRELIMINARY ISOTOPIC STUDY OF CARBON IN GOLD-QUARTZ VEINS, TOTAL ERICKSON MINE, CASSIAR DISTRICT, BRITISH COLUMBIA

INTRODUCTION

The occurrence of reduced carbon of hydrothermal origin (compare Rumble and Hoering, 1986) has been recognized for many years; examples of Canadian Archean gold deposits that exhibit the gold-quartz-carbon association have been reviewed by Colvine *et al.* (1984). Interest in the association stems from the occurrence of high-grade coarse gold with concentrations of reduced carbon at some localities. The association appears to result from the absorptive and reducing character of graphite in contact with younger gold-bearing solutions. In some cases free gold has been observed to have grown into a vein from graphite flakes at the vein margin. Clearly, the origin of the carbon in and adjacent to such veins is important both in refining the genetic models of such deposits and in understanding the distribution of gold throughout such veins. This study examines the origin of reduced carbon in the gold-quartz veins and surrounding altered zones of the Cassiar district of northern British Columbia.

GEOLOGICAL SETTING

The Erickson mine in the Cassiar district of northern British Columbia is in the Sylvester allochthon, an accreted late Paleozoic to early Mesozoic oceanic terrane consisting of volcanic, sedimentary and ultramafic rocks of the Mississippian to Triassic Sylvester Group. The allochthon was emplaced on autochthonous rocks of the North American miogeocline after the Triassic and prior to the mid-Cretaceous: later it was intruded by Middle to Late Cretaceous quartz monzonite of the Cassiar complex (Tempelman-Kluit, 1979, Gabrielse and Mansy, 1980; Gordey *et al.*, 1982; Harms, 1984, 1985a and 1985b; J. Nelson *et al.*, 1987, 1988; M.J. Orchard and K.M. Dawson, written communication, 1986). Gold-quartz veins with associated carbon are dated by Sketchley *et al.* (1986) at about 130 Ma.

The geology of the central part of the allochthon, the underlying autochthonous rocks and quartz monzonite intrusions was mapped initially by Gabrielse (1963). Later work by Diakow and Panteleyev (1981), Panteleyev and Diakow (1982), Gordey *et al.* (1982), Sketchley *et al.* (1984) Sketchley (1986) and Sketchley and Sinclair (1985a, 1985b) involved more detailed work in the vicinity of the Erickson deposits.

QUARTZ VEINS

White quartz veins, the most common type throughout the Erickson mine, have been described by Sketchley (1986). Most occur in basalt but a few cut ultramafic and sedimentary rocks. Within basalt, most white quartz veins trend easterly to northeasterly and have steep to moderate north or south dips. Individual veins are relatively uniform in width, ranging from a few centimetres to over six metres, but some pinch and swell, or split. Large veins may persist for hundreds of metres along strike and then terminate by pinching or horsetailing; downdip, the extent of the veins has not yet been determined. A moderate to steep westward plunge is evident in the veins and ore shoots, and slickensides along the margins of veins.

Carbonatization of basalt, occurring as well-developed envelopes around white quartz veins, is the most common type of alteration. Silicification of basalt, although uncommon, is noteworthy. Silicification also occurs around quartz veins in siliceous sedimentary rocks. An alteration assemblage of talc, breunnerite, quartz and fuchsite is associated with white quartz veins in ultramafic rocks.

White quartz veins are composed of white macrocrystalline quartz with minor ankerite, clots of white to pale green sericite and white clay minerals. Inclusions of altered wallrock are locally common. Fracturing, brecciation and flooding of the white quartz by clear microcrystalline quartz impart a white and grey mottled appearance. In addition, clear quartz veins less than 1 centimetre wide, with minor carbonate and rare carbon, crosscut white quartz veins. The Alison, Maura, and parts of the Jennie veins contain carbon-rich bands composed of clay, ankerite, quartz, carbon, pyrite and iron-titanium oxides. The carbon-rich layers generally parallel vein margins and some extend for several metres along strike. They vary from thin bands, locally with stylolitic form, to bands and lenses up to several centimetres thick.

White quartz contains only minor pyrite and sphalerite. Three generations of clear quartz occur in the mine within white quartz veins. Most of the mineralization, consisting of pyrite, tetrahedrite, spalerite, chalcopyrite and gold, occurs in the first generation of clear quartz. Galena and arsenopyrite are rare. Second generation clear quartz contains only minor pyrite; the third appears barren (Dussell, 1986). Paragenetic studies by Grant (1981), Fjetland (1982), Hooper (1984) and Dussell (1986) indicate the following general overlapping sequence of deposition; arsenopyrite (early), pyrite, galena, sphalerite, tetrahedrite and chalcopyrite (late). They found gold as inclusions and fracture fillings replacing pyrite, and less commonly sphalerite, chalcopyrite and tetrahedrite.

Homogenization temperatures of primary fluid inclusions in clear quartz within white quartz veins (Hooper, 1984) have a mean temperature of 278°±10°C. A representative homogenization temperature of 285°C was determined by Dussell (1986) from measurements on primary fluid inclusions in the first and second generations of clear quartz. Based on an arbitrarily assumed load pressure of 625 atmospheres, Dussell determined that the tempeature of entrapment was about 350°C.

CARBON VEINS

Carbon veins were observed only in basalt next to white quartz veins containing carbon-rich layers. They are locally common adjacent to the margins of the Alison vein, and less so the Maura vein. The best-known exposure is next to the margin of the Alison vein, where the carbon vein is up to several metres thick and can be traced for at least 10 metres along strike. Carbon-rich carbonatized basalt is associated with carbon veins. Contacts of the veins with basalt are sharp. Carbon veins commonly are sheared along contacts with white quartz veins and are friable and extensively slickensided. Contacts between carbon veins and white quartz veins are sharp and offset locally by late, clear quartz-carbonate-carbon veins.

Carbon veins are black, fine to coarse grained and massive; however, here and there a layering was noted parallel to contacts, similar in appearance to colloform layering. White quartz is locally common as blebs and strings with the carbon veins. Carbon veins are composed of 50 to 90 volume per cent carbon, 15 to 45 per cent quartz, up to 5 per cent ankerite and traces of pyrite. An extremely weak diffraction pattern obtained for the carbon indicates a poorly crystalline structure. Microscopically, carbon veins resemble a breccia composed of discrete angular fragments of carbon, up to 1.0 millimetre across, in a matrix of quartz and ankerite. Small irregularly shaped voids are locally common within the matrix.

SAMPLING AND ANALYTICAL RESULTS

Ten samples were selected from specimens in and near the Alison vein to serve as a preliminary survey of carbon isotopic composition for vein carbon from the McDame camp. These samples, were derived from

TABLE B-31-1
CARBON ISOTOPE ANALYSIS

SAMPLE NUMBER	$d^{13}C_{PDB\text{-}CO2}$ $^{0}/_{00}$	INTERNAL PRECISION
83-126-01	-26.955	0.0007
83-126-02	-26.987	0.003
83-279-01	-27.073	0.008
83-279-02	-27.105	0.004
83-300-01	-26.224	0.003
83-300-02	-26.243	0.005
83-301-01	-26.306	0.004
83-301-02	-26.971	0.001
83-301-03	-27.219	0.003
83-301-04*	-27.201	0.004

**two separate measurements were made -27.201, -27.171*

Reproducibility of $d^{13}C \pm 0.1\ ^{0}/_{00}$

83-126	Carbon vein, typical of many described by Sketchley (1986), obtained from 28-17 drift, in centre of a carbon vein (0.8 m wide) along footwall of Alison vein.
83-279	Carbon vein sample typical of those described by Sketchley (1986), obtained from diamond-drill hole 83-276 at 2 m from collar, that is, slightly above the 21-level drift near Alison 21-12-tope.
83-300	From carbon vein at contact with carbon-rich altered basalt in footwall of Alison vein in 28-17 drift.

material used by Sketchley (1986) and Sketchley *et al.* (1985) in their characterization of vein and alteration zones for gold-quartz veins in the camp. Results of carbon isotope analyses are given in Table B-31-1; analyses were performed in Dr. T. Pederson's mass spectrometry laboratory, Department of Oceanography, The University of British Columbia.

INTERPRETATION

The reported isotopic compositions of carbon in the various samples is remarkably uniform at about 27$^{0}/_{00}$. This value agrees well with carbon from terrestrial plants, coal, petroleum and reduced carbon in igneous rocks, but contrasts dramatically with the values for carbon in marine carbonates and most hydrothermal carbonates. No comparative information has been found in the literature for reduced carbon (non-graphitic) in a comparable hydrothermal environment.

Isotopic fractionation may have led to very different values from those at the point of origin of the carbon. Additional analyses are required for coexisiting carbonates from related alteration haloes and from carbon-rich layers in marine sedimentary rocks occurring near the base of the Erickson veins, both of which may have a genetic relationship with the amorphous carbon in the veins.

ACKNOWLEDGMENTS

This project is a contribution to the Canada/British Columbia Mineral Development Agreement.

CONCLUSIONS

Carbon isotopic compositions of reduced carbon related to quartz veins in the Erickson mine appear to be remarkably uniform and are somewhat unusual relative to most published analyses of hydrothermal carbon. Additional analyses of associated carbonates and possible source material are required in order to draw conclusions regarding the origin of the carbon; this work is presently in progress.

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McDAME

(Fig. B1, No. 32)

By Joanne Nelson

LOCATION:	Lat. 59°19′20″	Long. 129°48′50″	104P/5
	LIARD MINING DIVISION. 500 metres south of the Cassiar open-pit asbestos mine.		
CLAIMS:	C.G. 6513, 6501, 6502, 6512, 6499, 6500, 6503.		
ACCESS:	Via Stewart-Cassiar Highway.		
OWNER/OPERATOR:	CASSIAR MINING CORPORATION.		
COMMODITY:	Asbestos.		

THE MCDAME ASBESTOS OREBODY: DEVELOPMENT PROGRESS AND NEW GEOLOGICAL INTERPRETATIONS

INTRODUCTION

The McDame asbestos orebody is a blind deposit near Cassiar in far northern British Columbia. It was discovered in 1984 and is scheduled to begin production in May 1990 with full production by January 1991. This progress report outlines development work undertaken in 1988-89 and also preliminary geological observations based on regional mapping conducted by Ministry staff in 1988.

EXPLORATION HISTORY

1978:	Asbestos mineralization intersected in 1563-metre adit on McDame Mountain, driven to provide access for infill drilling in Cassiar orebody.
1978-81:	Further adit development and underground drilling.
1983-84:	Aeromagnetic and geological surveys conducted south of open pit.
1984:	McDame orebody intersected in drillhole from near top of McDame Mountain.
1985-86:	Adit at 1415-metre level driven for drill and sampling access.
1987:	Cassiar Mining Corporation received grant from Province of B.C. to aid in development of orebody.
1988-89:	Development of access, ventilation and production workings, with an early 1990 production startup targeted.

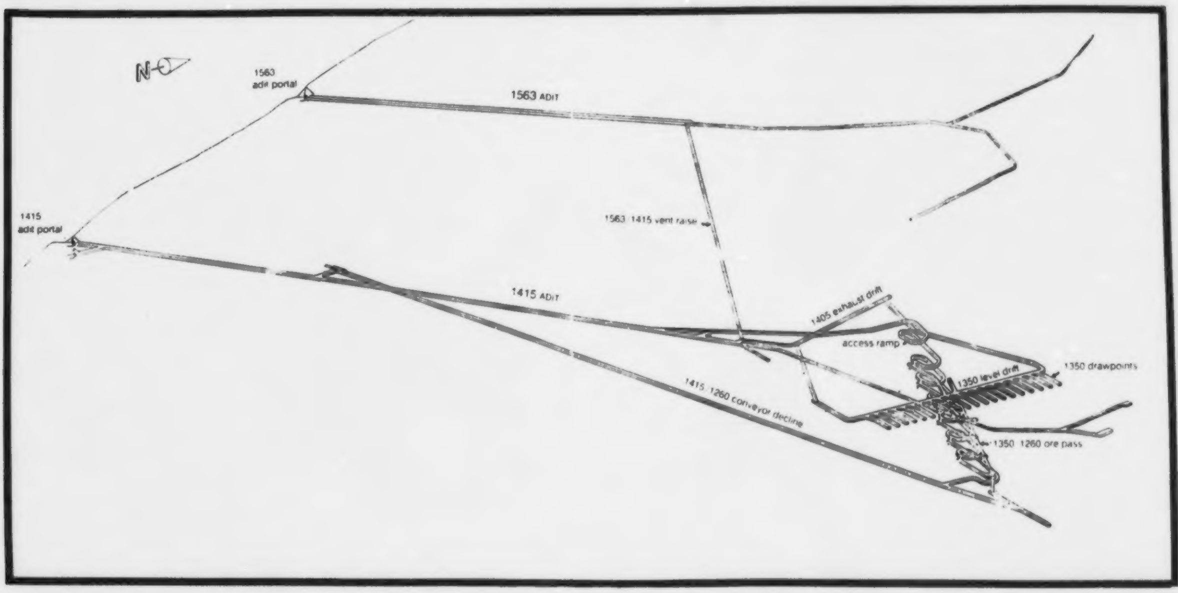
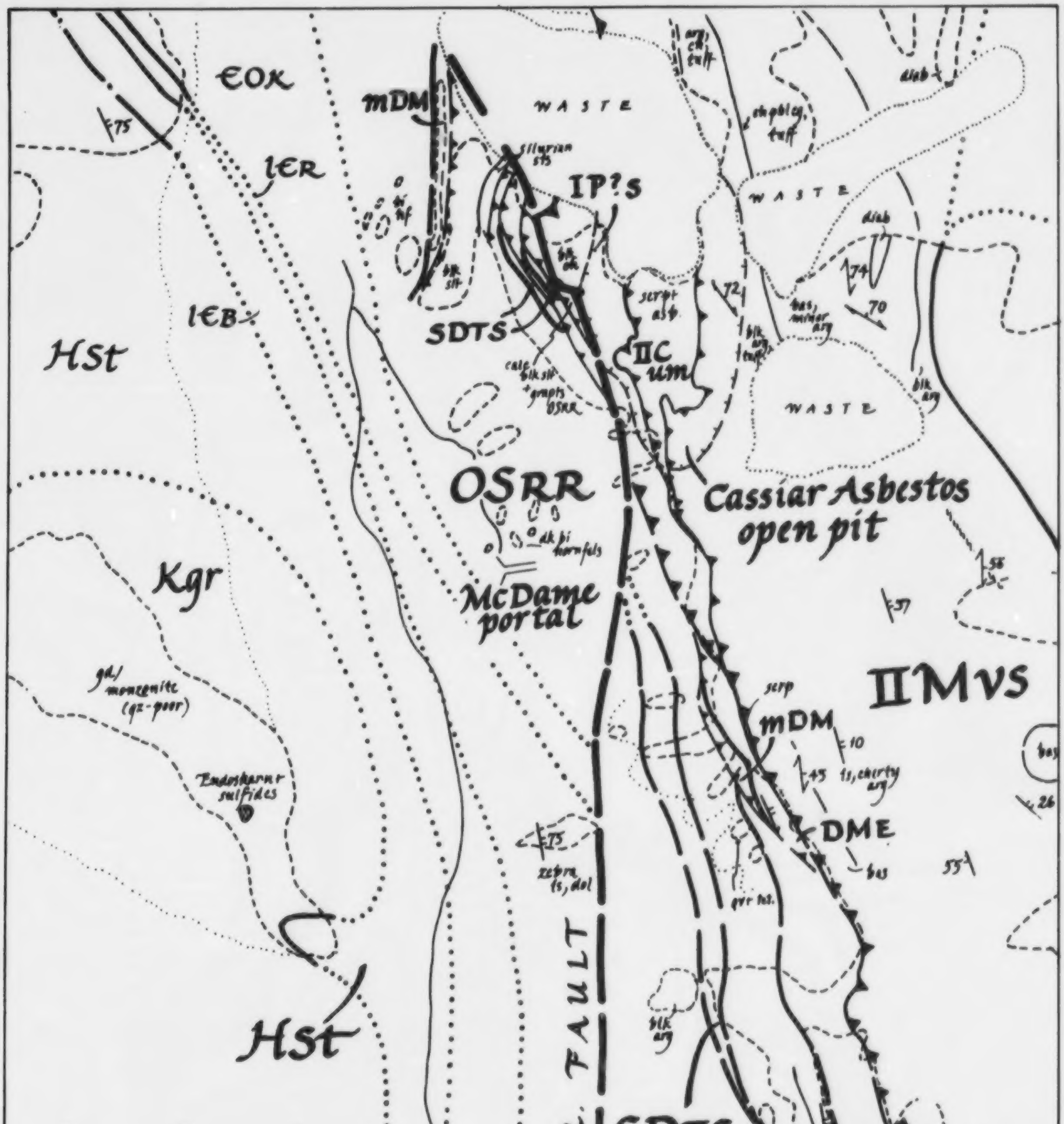

N
1563 adit portal
1563 ADIT
1415 adit portal
1563 1415 vent raise
1415 ADIT
1405 exhaust drift
access ramp
1350 drawpoints
1350 level drift
1415 1260 conveyor decline
1350 1260 ore pass

Figure B-32-1. Isometric projection of McDame mine now under development. Length of 1415-metre adit approximately 1300 metres.


ЄOK
mDM
WASTE
75
lЄR
silurian sts
IP?S
arg/cb/tuff
shphlcg tuff
diab
WASTE
diab
74
70
72
lЄB
Hst
blk sit
SDTS
serp ast
IIC um
blk arg tuff
bas, minor arg
calc blk silt + grapts OSRR
WASTE
blk arg
OSRR
Cassiar Asbestos open pit
dk bi hornfels
58
57
Kgr
McDame portal
IIMvs
gd/monzonite (qz-poor)
serp
mDM
10
45
ls, cherty arg
bas
26
Endoskarn sulfides
75
zebra ls, dol
DME
bas
55
qvr ts.
blk arg
Hst
0
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kilometres
MARBLE CR. FAULT
SDTS
DME
bdd ls
blk calc silt + bas dyke? / flow?
mDM
mass. dol + qv stockw.
bas, minor arg
CASSIAR
OSRR
54
blk calc phyl

Figure B-32-2. Geology of the area around the McDame and Cassiar mines, from Nelson *et al.*, 1989. Kgr = Cassiar batholith, Hst = Stelkuz Formation, lCB = Boya Formation, lCR = Rosella Formation, COK = Kechika Group, OSRR = Road River Group, SDTS = Tapioca sandstone, mDM = McDame Group, DME = Earn Group, IIMvs = Mississippian basalts and sediments of Sylvester allochthon; IP?s = Permian? chert; IICum = Cassiar ultramafite.

CURRENT ACTIVITY

The underground development program on the proven north section of the McDame orebody is under contract to Canadian Mine Development Ltd., employing 30 to 65 men. The existing 1563-metre and 1415-metre adits are being expanded to 5 by 4 metres in size. In addition, 3500 metres of new development - spiral ramps, vents/exhausts, the 1415/1260 decline, and the first production drift at the 1350-metre level (Figure B-32-1) are part of the current program. All workings are located in the footwall of the orebody.

The footwall is composed of graphitic slate of the Ordovician-Silurian Road River Group, structurally overlain by 50 metres of ribbon cherts at the base of the Sylvester allochthon, and then barren serpentinite directly below the asbestos stockwork. This far-from-optimal ground has called for development and mining methods unique in Cordilleran hardrock mining. Nonproduction workings are extensively bolted and steelcreted. A quantitative system of rock evaluation, devised by Dr. D. Laubscher and modified on site for application to the McDame development, is applied by geological staff during underground mapping to determine the level of support in each segment of the workings. Rock ratings are based on the following parameters: rock type, joint frequency and orientation with respect to the rock face, alteration and joint filling.

Mining of the McDame orebody will proceed by block caving methods from sets of footwall drawpoints, the first of which is shown on the 1350-level on Figure B-32-1. The 16 million tonnes of production anticipated from the north section will come from the 1350 through 1215-levels, accessed from the workings now under construction.

GEOLOGY

REGIONAL SETTING

The McDame deposit lies within the Cassiar ultramafic sheet, one of many thrust sheets that make up the Sylvester allochthon. The Sylvester allochthon is a collapsed, highly imbricated Late Paleozoic oceanic suite, interpreted by Nelson and Bradford (1989) as a marginal basin, that was emplaced eastward in mid-Mesozoic time on top of North American continental margin strata of the Cassiar terrane. The allochthon is preserved as an elongate northwest-trending klippe with an overall synclinal form. In the Cassiar map area, it includes two major ultramafic (-gabbroic) sheets, the Cassiar and Zus Mountain bodies (Nelson *et al.*, 1989). The Cassiar sheet occupies a structurally low position in the allochthon. It is overlain by Mississippian to Permian basalts and interbedded sediments. The "cliffs sheet" and "limestone sheet" that directly overlie the ultramafic "McDame sheet" (Lyn, 1983; Burgoyne, 1986) are part of this supracrustal suite; they correlate with unit IIMvs of Nelson *et al.*, (1989).

The Cassiar sheet is wedge-shaped. It is very thick on the eastern limb of the synclinorium and thins dramatically to its western limb exposures in the Cassiar pit and southwards (Figure B-32-2), where it tapers out as the "tail serpentinite" (Lyn, 1983) or "McDame sheet" (Burgoyne, 1986;). The serpentinites that host the Cassiar and McDame orebodies share a common footwall, a distinctive black, or red and black chert package that is exposed at the north and south ends of the open pit and also in the 1415-adit (the author has not seen the 1563-adit).

DEPOSIT GEOLOGY

The mechanically troublesome footwall of the McDame deposit, described above, is the result of a structural anomaly in common with the west side of the Cassiar pit - the local absence of competent, thick carbonate stratigraphic units below the base of the Sylvester allochthon. Everywhere but in this area, the allochthon rests on a complete Mississippian to Precambrian section that includes, from the top down: Devono-Mississippian Earn Group slates and siltstones; Middle Devonian McDame Group massive dolomite and limestone; Siluro-Devonian "tapioca sandstone", massive dolomite, sandy dolomite and quartzite; Ordovician-Silurian Road River Group graphitic slates; and on down through Cambrian and Precambrian units. However, from the northwestern tailings pond of the Cassiar mine, southwards at least to the McDame adits, appreciable McDame-Tapioca sections are not seen below the Sylvester allochthon (Figure B-32-2). On the main Cassiar pit access road, only thin carbonate slivers occur; and graptolites, typical of the Road River Group, were recovered from limey graphitic slate less than 25 metres below the basal Sylvester cherts. No carbonate occurs in the 1415-adit, although small outcrops are seen on the hillside above it, on surface.

The imbricate thrusting in the subjacent North American section that accompanied emplacement of the allochthon (Harms, 1985; Nelson *et al.*, 1989) results in duplication and thickening of the carbonate units. Such imbrication cannot account for thinning, slivering and elimination of the section; another structural mechanism must be sought. Geometrically, stratigraphic units can only be removed by either transcurrent or normal faulting oriented at angles tangential to bedding.

Several late faults have been identified in the Cassiar mine area: the north-trending Marble Creek normal fault (Figure B-32-2) and faults within the pit itself - the 45-degree shear, the 70-degree shear, and the footwall fault (O'Hanley, 1988). O'Hanley correlated asbestos growth in the Cassiar pit with a transition from normal to dextral-reverse motion on the north-trending 70-degree shear. Transcurrent motion is also possible on the Marble Creek fault. This fault system as a whole not only brought about the unique structural setting of the Cassiar and McDame mines, but also provided the structural control for fracturing and asbestos development. Thus the process of ore formation in the McDame deposit was inextricably intertwined with the creation of bad ground below it.

The fault system in the vicinity of the McDame and Cassiar mines has now been identified; but it remains to be worked out. Are these faults a significant transcurrent array, and if so, do they constitute a flower zone or a set of strike-slip imbricates? These questions should be answered by detailed mapping and structural analysis by David O'Hanley in 1989.

ECONOMIC POTENTIAL

The northern section of the McDame deposit, currently under development, contains drill-proven reserves of 16 million tonnes of 5.6 per cent recoverable fibre. Ten years of production is planned from this part of the orebody alone. The less well-defined southern section contains 30 million tonnes of geological reserves at grades of 5.6 per cent recoverable fibre.

Throughput at the Cassiar mill in 1988 was 1165477 tonnes containing 9.1 per cent fibre. Because of the lower fibre content of the McDame ore, it is planned to increase the milling rate to 133 000 tonnes per month. Fibre recovery will be enhanced by improved concentration of the ore and a wet-milling circuit will be added to process tailings. The lower yields from the McDame deposit will be in part offset by the greater value of the longer fibre.

SUMMARY AND CONCLUSIONS

Regional mapping in 1988 suggests that the McDame orebody, as well as the nearby Cassiar orebody, occupy a major fault zone that postdates emplacement of the Sylvester allochthon. Movement on these faults has removed a section of competent carbonate from the McDame footwall; this has necessitated difficult and expensive development work. However the presence of this fault system may well explain the extensive development of asbestos stockworks, which are conspicuously absent in all other serpentinites of the Sylvester allochthon so far observed in regional mapping. Details of the geometry and movement history of these faults will be forthcoming as a result of 1989 fieldwork.

Development of the McDame orebody is on schedule, with production anticipated next year.

ACKNOWLEDGMENTS

Thanks go to Roger Tyne for an enlightening underground tour and for critical reading of the manuscript. This project is a contribution to the Canada/British Columbia Mineral Development Agreement.

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PART C

MINERALS AND COAL EXPLORATION

PREFACE

SOURCES OF INFORMATION

Assessment reports on geology, geophysics, geochemistry, drilling, and prospecting submitted by the mineral exploration and development industry are the primary sources of detailed technical data.

The summaries published in this volume are believed to be reliable as far as the many individual sources and interpretations permit. Entries have been proofread, but do not conform to normal Geological Survey Branch editorial standards for publications.

The 1988 edition of *Exploration in British Columbia* includes approved assessment reports submitted between January 1, 1988 and December 31, 1988.

ORGANIZATION

The property descriptions that form the body of Part C are presented in two sections: minerals and coal.

The minerals section has been computer-sorted. Initially properties are grouped in ascending order of 1:250 000 scale NTS map sheets (for example, 82E) and further subdivided by 1:50 000 east and west half-sheets (for example, 82E/2E).

NAME

Most often the name given to a property is that referred to by the author of the report. If there is no name associated with the project described in the assessment report, a claim name is used as the property name.

ASSESSMENT REPORT NUMBER

The assessment report number (A.R.) listed is assigned to the report when it is accepted under the *Mineral Tenure Act* and Mineral Tenure Act Regulations.

REPORT YEAR

The year the report was written.

NUMBER OF PAGES/MAPS

Pages contained in the assessment reports range from 8 1/2" by 11" to 11" by 17". Maps contained in the reports are larger than 11" by 17".

LOCATION

The latitude and longitude given are either at the centre of the property or the area where most of the work was done. Mining Division and NTS designations are keyed to the location of the work performed. Where claims are located on more than one NTS sheet, up to four NTS designations are given.

CLAIM(S)

Up to 25 claim names may be listed on which work has been performed.

OPERATOR(S)

Individual(s) or the company(s) that completed and paid for the work is listed. A company name may be followed by these abbreviations:

Assoc. (Associates or Association)
Can. (Canadian or Canada)
Cons. (Consolidated)
Constru. (Construction)
Consul. (Consultant)
Dev. (Development)
Eng. (Engineering)
Ent. [Enterprise(s)]
Ex. [Exploration(s)]
Fin. (Financial)
Ind. (Industry or Industries)
Inf. (Informational)
Int. (International)
Inv. (Investments)
Manuf. (Manufacturing)
Min. (Mining/Minerals)
Mines (In Full)
Partn. (Partnership)
Petr. (Petroleum)
Pros. (Prospecting)
Res. (Resources)
Synd. (Syndicate)
Ventures (In Full)

Co., Ltd., Corp., and Inc. are omitted.

AUTHOR(S)

Person(s) that described the assessment work in a report.

EXPLORATION TARGET

Principal commodities that the operator(s) searched for.

GEOLOGY

A capsule geological description of the property may include lithology, age, structure, mineralization, and alteration. These descriptions are from a variety of sources and do not necessary reflect the most current geological theories for the area being described.

WORK DONE

A coded summary of the type and amount of exploration work is illustrated in the following example:

DIAD 355M; 3 HOLES, NQ	Surface diamond drilling totalling 355 metres in 3 holes of NQ size
SOIL 250; CU, AG	250 soil samples analysed for copper and silver
ME	Multielement - samples analysed for more than 8 elements
GEOL/PROS 1:5000	Indicates scale/detail of geological/prospecting mapping
KM	Total linear kilometres

REFERENCES

Only related MINFILE and assessment report references describing work done on or near the claims are listed. Data sources are coded as:

Related A.R.
MINFILE

WORK TYPE CODES

TYPE OF WORK	CODE
GEOLOGY	
Geological mapping	GEOL
Photo interpretation	FOTO
GEOPHYSICS	
Geophysics, general	GEOP
Dip needle	DIPN
Magnetometer, ground	MAGG
Magnetometer, airborne	MAGA
Electromagnetic, ground	EMGR
Electromagnetic, airborne	EMAB
Induced polarization	IPOL
Self potential	SPOT
Seismic	SEIS
Gravity	GRAV
Resistivity (alone)	REST
Mise-a-la-masse	MALM
Radiometric, ground	RADG
Radiometric, airborne	RADA
Scintillometer, ground	SCGR
Scintillometer, airborne	SCAB
Gamma ray spectrometer, ground	GRSG
Gamma ray spectrometer, airborne	GRSA
Radiometric drill hole probing	RADP
Radon gas scintillometry	RGAS
Airborne infra-red	INFR
Radar	RADR
GEOCHEMISTRY	
Soil	SOIL
Stream sediment	SILT
Heavy minerals	HMIN
Rock chip	ROCK
Water	HYDG
Biogeochemistry	BIOG
Fission track etch	ETCH

TYPE OF WORK	CODE
DRILLING	
Diamond	DIAD
Percussion	PERD
Rotary	ROTD
Becker hammer	BHDR
Overburden	OBDR
Underground	UNDD
Churn	CHUD
PROSPECTING	
Prospecting	PROS
RELATED TECHNICAL	
Sampling and assaying	SAMP
Petrography	PETR
Mineralography	MNGR
Metallurgy	META
PREPARATORY	
Linecutting or grid establishment	LINE
Topographic mapping	TOPO
Underground surveying	USUR
PHYSICAL	
Trenching	TREN
Small pits	PITS
Stripping	STRI
Road work	ROAD
Underground development	UNDV
Land surveying	LSUR
Reclamation	RECL
Trail	TRAL

DETAILED DATA

Detailed property and technical data are described in the assessment reports which are confidential for a period of one year from the date of affidavit. The confidentiality period may be extended up to three years for regional surveys, and up to five years for drill-core assays upon request. All non-confidential assessment reports may be viewed at the Geological Survey Branch in Victoria, Senior Regional Geologist's office in Vancouver, and District Geologists' offices in Smithers, Prince George, Kamloops and Nelson. Partial sets of non-confidential assessment reports on microfiche are also available for viewing at most Gold Commissioners' offices.

Photocopies of the reports and information may be obtained from:

Geological Survey Branch
Mineral Resources Division
Ministry of Energy, Mines and Petroleum Resources
Room 121, 525 Superior Street
Victoria, BC
V8V 1X4

Telephone: (604) 356-2278
Fax: (604) 387-3594

Microfiche copies and photocopies may be obtained from:

The Victoria Microfilm Company Ltd.
538 Culduthel Road
Victoria, BC
V8Z 1G1

Telephone: (604) 381-4222
FAX: (604) 383-2848

TABLE C1. SUMMARY OF ASSESSMENT WORK, 1988

NTS	No. of A.R.	Value ($)	Geology (ha)	Geophysical Airborne (km)	Geophysical Ground (km)	Geochem. No. of Samples	Drilling Diamond (m)	Drilling Rotary Percussion Overburden (m)	Prospecting (ha)	Trenches (m)	Access Roads (km)	Line Grid (km)	UNDV (m)
82/83	351	19 725 483	85 852	1450	3599	127 545	83 163	15 182	9008	16 207	151	2367	2173
92/102	447	21 990 808	32 185	5047	7291	88 016	47 651	10 593	21 089	21 079	54	3071	188
93	257	11 672 761	78 759	4070	2234	122 902	76 210	17 585	17 067	13 648	129	2506	55
94	77	6 268 410	45 989	2252	347	34 490	41 924	---	7435	8820	---	340	---
103	59	4 544 187	26 394	1614	576	17 492	16 828	2611	2256	653	23	367	1502
104/114	212	14 816 990	53 008	5739	1247	90 800	78 486	6553	4221	4375	68	634	805
TOTALS													
1988	1403	79 018 639	322 187	20 172	15 294	481 245	344 262	52 524	61 076	67 782	425	9285	4723
1987	1181	42 736 000	---	16 607	10 686	284 332	160 011	16 592	---	25 609	294	7202	554
1986	1011	---	---	13 082	9278	213 558	92 811	11 280	---	21 280	178	5861	300

TABLE C2. SUMMARY OF ASSESSMENT WORK, 1987

NTS	No. of A.R.	Value ($)	Geology No. of Surveys	Geophysical Airborne (km)	Geophysical Ground (km)	Geochem. No. of Samples	Drilling Diamond (m)	Drilling Rotary Percussion (m)	Prospecting No. of Surveys	Trenches (m)	Access Roads (km)	Line Grid (km)	UNDV (m)
82	306	8 973 000	97	1042	2737	73 216	38 151	3251	34	4634	56	1635	100
83	5	58 000	2	---	---	568	---	---	---	---	1	11	---
92	389	12 030 000	171	2500	4050	86 400	40 000	2800	45	5800	103	2400	---
93	228	8 259 000	50	6880	2410	71 148	31 716	9571	19	10 776	54	2017	50
94	82	2 750 000	18	3475	144	14 813	8425	---	4	2076	17	162	---
103	59	1 886 000	22	792	573	11 236	3133	---	5	455	44	515	---
104	106	7 485 000	41	1818	727	25 941	36 358	970	17	1868	19	438	404
114	6	1 295 000	3	100	45	1010	2228	---	1	---	---	24	---
TOTALS													
1987	1181	42 736 000	404	16 607	10 686	284 332	160 011	16 592	125	25 609	294	7202	554
1986	1011	---	404	13 082	9278	213 558	92 811	11 280	131	21 280	178	5861	300
1985	905	---	322	12 934	6777	166 803	74 883	8376	165	13 030	136	3753	2080

TABLE C3 — ASSESSMENT WORK, 1988

NTS	082/083	092/102	093	094	103	104/114
NO. OF A.R.	351	447	257	77	59	212
EXPENDITURES ($):						
Total	19,725,483.00	21,990,808.00	11,672,761.00	6,268,410.00	4,544,187.00	14,816,990.00
Geological	985,858.00	2,854,953.00	1,180,654.00	505,798.00	599,079.00	2,152,284.00
Geophysical						
air	143,370.00	224,175.00	154,256.00	127,338.00	66,764.00	282,312.00
ground	1,358,717.00	1,869,762.00	708,775.00	181,980.00	193,874.00	544,796.00
Geochemical	2,882,819.00	4,309,459.00	2,496,113.00	1,021,595.00	591,617.00	3,241,400.00
Drilling						
core	6,259,985.00	10,434,293.00	5,217,086.00	4,040,432.00	2,325,818.00	7,488,171.00
non-core	531,418.00	707,026.00	687,339.00	0.00	231,782.00	436,438.00
Prospecting	91,664.00	231,555.00	84,303.00	135,518.00	16,891.00	47,322.00
Physical	7,471,652.00	1,359,585.00	1,144,235.00	255,749.00	518,362.00	624,267.00
TYPES OF WORK:						
Geological						
GEOL ha	85,852.3	32,185.3	78,759.0	45,988.5	26,393.6	53,007.9
FOTO ha	2,945.9	900.0	5,000.0			37,750.0
PETR samples	128	159	223	42	6	21
MNGR samples		4	26	3	2	
Geophysical air						
MAGA km	724.9	2,523.6	2,274.2	1,517.0	807.0	2,851.5
EMAB km	724.9	2,523.6	1,796.0	735.0	807.0	2,887.5
Geophysical ground						
MAGG km	1,480.6	2,715.5	977.6	119.2	248.2	612.5
EMGR km	1,760.8	2,611.6	930.9	169.9	233.3	490.0
IPOL km	292.4	431.5	316.7	47.8	84.6	53.3
REST km	8.2	27.5	4.4	10.0		56.0
SEIS km		13.4	1.3			6.4
SPOT km	27.0	13.0			10.0	14.5
GRAV km	14.9					14.6
MALM m		616.0				
SCGR km	15.4		2.7			
RADG km		4.3				
RADP m		857.7				
Geochemical						
SOIL samples	84,519	25,872	80,374	16,367	11,787	35,782
SILT samples	2,070	1,836	1,409	642	310	3,022
ROCK samples	10,011	22,465	9,038	2,481	1,918	17,355
HMIN samples	117	592	309		187	248
HYDG samples		18	5			
SAMP samples	30,484	37,223	31,336	14,997	3,283	34,368
META samples	23	10	68	3	7	25
BIOG samples	321		363			
Drilling core						
DIAD metres	71,147.1	44,965.1	76,209.8	41,924.2	16,827.8	74,613.9
UNDD metres	12,015.4	2,686.2				3,872.5
Drilling non-core						
PERD metres	1,267.8	5,033.2	12,386.4		2,502.4	2,603.5
ROTD metres	13,617.9	5,559.4	5,122.0			3,949.8
OBDR metres	296.0		76.8		108.2	
Prospecting						
PROS ha	9,008.0	21,088.5	17,067.0	7,435.2	2,256.0	4,221.0
Physical						
LINE km	2,367.4	3,071.0	2,506.4	340.4	366.9	633.5
ROAD km	150.6	54.4	129.4		23.3	68.2
TRAL km	6.8	.9				
LSUR km	7.2	4,228.6			58.4	
TREN metres	16,207.0	21,079.0	13,647.6	8,820.3	653.0	4,375.0
UNDV metres	2,172.7	187.8	55.0		1,502.1	805.1
USUR metres	300.0				1,462.5	
TOPO ha	24,709.9	31,160.0	2,800.0	10,400.0	2,450.0	23,200.0
RECL ha	.3		2.0	1.0		1.0
STRI ha	2.0		1.0			.1
PITS no. of	37	232	120		27	53

TABLE C4 --EXPLORATION PROJECT COSTS, 1988

Type of Work Code	Amount	Units	Value $	Average Cost $	Number of Surveys
GEOL	181,138.00	ha	2,763,467.59	15.25 per ha	214
FOTO	24,675.00	ha	97,614.19	3.95 per ha	10
PETR	118.00	samples	8,135.50	68.94 per sample	16
MAGA	9,186.10	km	432,295.46	47.05 per km	58
EMAB	8,265.90	km	386,045.46	46.70 per km	50
MAGG	2,782.80	km	627,254.62	225.40 per km	106
EMGR	2,979.10	km	958,633.80	321.78 per km	136
IPOL	384.10	km	762,924.04	1,986.26 per km	39
SOIL	149,176.00	samples	3,707,313.50	24.85 per sample	284
SILT	2,853.00	samples	202,919.24	71.12 per sample	69
ROCK	17,310.00	samples	847,978.38	48.98 per sample	224
HMIN	650.00	samples	107,185.72	164.90 per sample	22
SAMP	49,897.00	samples	646,063.32	12.94 per sample	108
DIAD	154,707.00	metres	17,196,048.20	111.15 per metre	132
PERD	16,878.20	metres	898,281.28	53.22 per metre	13
ROTD	7,366.10	metres	654,916.26	88.90 per metre	15
PROS	27,716.50	ha	274,046.50	9.88 per ha	62
LINE	4,241.90	km	1,036,500.02	244.34 per km	152
ROAD	164.00	km	631,441.63	3,850.25 per km	42
TREN	14,508.60	metres	555,199.56	38.26 per metre	37
TOPO	27,587.90	ha	54,405.19	1.97 per ha	11

Ground geophysical costs may vary according to density of data recorded.

Only those work types are included that have clearly apportioned costs, including support costs, in ten or more assessment reports.

MINERALS
EXPLORATION

Halifax-Motherlode A.R. 17046 REPORT YEAR: 1987, 43 Pages, 5 Map(s)

OPERATOR(S): **Westrim Res.**
AUTHOR(S): Von Einsiedel, C.A.
MINING DIV: Greenwood
LOCATION: NTS 082E01E LAT. 49 10 41 LONG. 118 07 53
CLAIM(S): Halifax(L.3042),Eva Bell(L.2031),Motherlode(L.1508)
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: DIAD 425.0 m 5 hole(s);NQ - 1 Map(s); 1:5000
SAMP 6 sample(s);AU
SOIL 135 sample(s);ME - 4 Map(s); 1:2500
GEOLOGY: The claims are underlain by sedimentary and volcanic rocks belonging to the Pennsylvanian Mount Roberts Formation. Mineralization occurs as irregular quartz veins containing gold in andesitic volcanics and as contact related massive sulphides along limestone contacts.
MINFILE: 082ESE081, 082ESE098, 082ESE099, 082ESE169

Mollie Gibson A.R. 16978 REPORT YEAR: 1988, 56 Pages, 6 Map(s)

OPERATOR(S): **Carson, J. Mollie Gibson Mines**
AUTHOR(S): Sookochoff, L.
MINING DIV: Greenwood
LOCATION: NTS 082E01E LAT. 49 09 30 LONG. 118 07 00
CLAIM(S): Mollie Gibson 1986,Molly Fr. #1-3
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: SOIL 847 sample(s);ME - 6 Map(s); 1:5000
GEOLOGY: Pennsylvanian and/or Permian Mount Roberts Formation is intruded by plugs and dykes of the Cretaceous and Paleocene Coryell Intrusions Gold, silver, lead and zinc mineralization is associated with silicified skarned limestone.
RELATED A.R.: 11989
MINFILE: 082ESE082

Hek A.R. 17375 REPORT YEAR: 1988, 65 Pages, 7 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Gill, D.G.
MINING DIV: Greenwood
LOCATION: NTS 082E01W LAT. 49 12 00 LONG. 118 28 00
CLAIM(S): Hek,Hek 2
EXPL. TARGET: Gold
WORK DONE: GEOL 100.0 ha - 1 Map(s); 1:2500
LINE 22.1 km
ROCK 57 sample(s);CU,PB,ZN,MO,AS,AG,AU
SOIL 753 sample(s);CU,PB,ZN,MO,AS,AG,AU - 6 Map(s); 1:2500
GEOLOGY: A Paleozoic-Triassic volcano-sedimentary package is intruded by Jurassic Nelson rocks and Tertiary Coryell syenite. A multiphased dyke swarm crosscuts all the latter rock types mainly in a northeast-southwest trend. Three zones of mineralization exist in the form of semi-massive to massive pyrite/pyrrhotite along the volcano-sedimentary/syenite contact. Epidote, biotite, chlorite and quartz alteration minerals are evident within the mineralized zone.
RELATED A.R.: 13546
MINFILE: 082ESE072, 082ESE179

Seattle A.R. 17378 REPORT YEAR: 1988, 56 Pages, 7 Map(s)

OPERATOR(S): **Simon Fraser Res.**
AUTHOR(S): Sookochoff, L.
MINING DIV: Greenwood
LOCATION: NTS 082E01W LAT. 49 08 01 LONG. 118 28 10
CLAIM(S): Lime,Seattle,Bunker Hill,No. 1,Virginia City,Loyal Canadian
EXPL. TARGET: Copper,Gold
WORK DONE: SOIL 605 sample(s);ME - 7 Map(s); 1:5000
GEOLOGY: The claims are underlain by the Permian Anarchist Group with cappings of Eocene Phoenix Group volcanics. Diorite of the Cretaceous-Jurassic Nelson Plutonic Rocks intrude limestone resulting in mineralized skarn zones. Mineralization consisting of copper and gold are associated with 15 metre wide skarn zones.
MINFILE: 082ESE078, 082ESE156, 082ESE158

Amro A.R. 17270 REPORT YEAR: 1988, 69 Pages

OPERATOR(S): **Wild Rose Res.**
AUTHOR(S): DiSpirito, F. Lumley, W.E.
MINING DIV: Greenwood
LOCATION: NTS 082E02E LAT. 49 04 27 LONG. 118 43 25
CLAIM(S): Golconda Fr. (L.2149)
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 546.3 m 10 hole(s);BDGM
ROAD 0.5 km
GEOLOGY: A bedded sequence of cherts and argillites (Lower Triassic) underlie the property. This section is cut by sills and dykes of microdiorite/greenstone and trachyte (Knob Hill Group). Quartz-pyrite-pyrrhotite mineralization is hosted by the argillites.
MINFILE: 082ESE116

April A.R. 17090 REPORT YEAR: 1988, 62 Pages, 6 Map(s)

OPERATOR(S): **Zephyr Res.**
AUTHOR(S): Sookochoff, L.
MINING DIV: Greenwood
LOCATION: NTS 082E02E LAT. 49 03 30 LONG. 118 32 30
CLAIM(S): April,Add
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: SOIL 875 sample(s);ME - 6 Map(s); 1:5000
GEOLOGY: Permo-carboniferous Attwood Group limestone, argillite and chert are underlain by sharpstone conglomerate and rocks of the Eholt Formation, Triassic Brooklyn Group. Mineralization occurs mainly as fissure fillings and replacement sulphide veins along northwest trending shear zones. In addition, copper occurs in skarn zones and gold-silver-copper in listwanite zones.
MINFILE: 082ESE206

Combination A.R. 17434 REPORT YEAR: 1988, 22 Pages

OPERATOR(S): **Kleman, T.D.**
AUTHOR(S): McLeod, J.W.
MINING DIV: Greenwood
LOCATION: NTS 082E02E LAT. 49 07 30 LONG. 118 40 00
CLAIM(S): TK 1,Combination
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: PROS 250.0 ha
ROCK 16 sample(s);ME
SOIL 49 sample(s);ME

GEOLOGY: Pre-Permian Knob Hill Group of rocks is intruded by Cretaceous Greenwood granodiorite. A mineralized vein is exposed along 40 metres of strike length of 270 degrees. The mineralization consists of pyrite, chalcopyrite, galena, sphalerite, native silver, magnetite and possibly gold. Alteration minerals are quartz, epidote, chlorite and calcite.

RELATED A.R.: 15538

MINFILE: 082ESE185

Crown II A.R. 17340 REPORT YEAR: 1988, 117 Pages, 10 Map(s)

OPERATOR(S): **Noranda Ex.**

AUTHOR(S): Gill, D.G.

MINING DIV: Greenwood

LOCATION: NTS 082E02E LAT. 49 05 01 LONG. 118 35 57

CLAIM(S): Crown 1,Crown 4-8

EXPL. TARGET: Gold

WORK DONE: ROTD 1022.9 m 9 hole(s) - 10 Map(s); 1:2500,1:250

SAMP 655 sample(s);AU

GEOLOGY: The property is mainly underlain to the north by cherts and greenstones of the Carboniferous-Permian Knob Hill Group with the Sharpstone member of the Triassic Brooklyn Group lying unconformably above the latter. The southern portion of the claims are underlain by pre-Carboniferous quartz-chlorite-biotite-muscovite schists and argillites of the Permian-Carboniferous Attwood Group. The rocks trend approximately 130-160 degrees and dip moderately to steeply to the north and east.

RELATED A.R.: 12373

MINFILE: 082ESE

E.P.U. A.R. 17711 REPORT YEAR: 1988, 111 Pages, 19 Map(s)

OPERATOR(S): **Cons. Ripple Res.**

AUTHOR(S): Sobering, E.A. Estabrooks, E.M.

MINING DIV: Greenwood

LOCATION: NTS 082E02E LAT. 49 05 03 LONG. 118 39 46

CLAIM(S): E. Pluribus Unum (L.3253),E.P.U. Fr. (L.3254),Lancashire Fr. (L.3255),Trilby (L.988), Mountain View (L.1100),Nightingale (L.1101),Clipper Fr. (L.1102),Margie (L.170S)

EXPL. TARGET: Gold,Silver

WORK DONE: GEOL 200.0 ha - 3 Map(s); 1:125 000,1:25 000,1:2500

LINE 22.9 km - 1 Map(s); 1:2500

LSUR 0.4 km - 1 Map(s); 1:2500

MAGG 22.0 km - 13 Map(s); 1:63 360,1:2500

ROCK 65 sample(s);ME

SOIL 133 sample(s);ME

TREN 564.0 m 5 trench(es) - 1 Map(s); 1:2500,1:100

UNDV;RHAB

GEOLOGY: Diorite, microdiorite, quartz feldspar porphyry, gabbro, granodiorites and ultramafic rocks are widely distributed throughout the claims area. Quartz veins are common particularly in and around bodies of granodiorite.

MINFILE: 082ESE004, 082ESE006

Eagle 85 A.R. 17591 REPORT YEAR: 1988, 26 Pages, 3 Map(s)

OPERATOR(S): **Noranda Ex. Kettle River Res.**

AUTHOR(S): Mitchell, I.G.

MINING DIV: Greenwood

LOCATION: NTS 082E02E LAT. 49 05 10 LONG. 118 32 14

CLAIM(S): RB 1-3

EXPL. TARGET: Gold

WORK DONE: LINE 7.6 km

SOIL 285 sample(s);CU,PB,ZN,AG,AU - 3 Map(s); 1:2500

GEOLOGY: The area worked on is principally underlain by serpentinite of unknown age and is fault bounded to the north and bounded to the east by a Tertiary dioritic complex. Triassic Brooklyn Group breccias, volcanic breccias, limestone breccias, conglomerate and minor limestone occur to the north and south of the large serpentinite body.

RELATED A.R.: 15905

Eholt A.R. 17488 REPORT YEAR: 1988, 41 Pages, 5 Map(s)

OPERATOR(S): **Golden Kootenay Res.**

AUTHOR(S): McLeod, J.W.

MINING DIV: Greenwood

LOCATION: NTS 082E02E LAT. 49 10 00 LONG. 118 32 00

CLAIM(S): Pt. Eholt,Eholt,Eholt 1

EXPL. TARGET: Gold,Silver,Copper

WORK DONE: EMGR 21.5 km;VLF - 2 Map(s); 1:5000

GEOL 950.0 ha - 1 Map(s); 1:5000,1:1000

MAGG 21.5 km - 1 Map(s); 1:5000

SOIL 650 sample(s);ME - 1 Map(s); 1:5000

GEOLOGY: Pre-Permian to Tertiary intercalated volcano-sediments are intruded by Cretaceous to Tertiary intrusives. Many of the rocks have undergone some metamorphism. Mineralization occurs along contacts and shears? The alteration minerals noted on the property include quartz, chlorite, gypsum, calcite, epidote and tremolite? Mineralization consists of pyrite, pyrrhotite, chalcopyrite, arsenopyrite, gold and silver.

RELATED A.R.: 08812

MINFILE: 082ESE060

Emma A.R. 17308 REPORT YEAR: 1988, 51 Pages

OPERATOR(S): **Skylark Res.**

AUTHOR(S): Burns, P.J.

MINING DIV: Greenwood

LOCATION: NTS 082E02E LAT. 49 08 00 LONG. 118 33 00

CLAIM(S): Emma,Jumbo,Mountain Rose

EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc

WORK DONE: DIAD 872.9 m 6 hole(s); NQ

ROAD 1.5 km

SAMP 126 sample(s);ME

GEOLOGY: Skarn zones have developed in limestone near diorite-granodiorite intrusives. Mineralization consists of disseminations, blebs, stringers and rarely massive sulphide bodies of chalcopyrite, bornite, galena, sphalerite, pyrite, magnetite and pyrrhotite.

MINFILE: 082ESE062

May A.R. 17684 REPORT YEAR: 1988, 12 Pages, 1 Map(s)

OPERATOR(S): **Sookochoff, L.**

AUTHOR(S): Sookochoff, L.

MINING DIV: Greenwood

LOCATION: NTS 082E02E LAT. 49 04 30 LONG. 118 33 00

CLAIM(S): May

EXPL. TARGET: Copper,Gold,Silver

WORK DONE: PROS 50.0 ha - 1 Map(s); 1:3600

GEOLOGY: Permo-Carboniferous Attwood Group greenstone is intruded by Triassic diorite or possibly Tertiary Marron igneous rocks, which are separated from serpentinite to the southwest by the Eagle Mountain Fault.

RELATED A.R.: 06222

Nicole A.R. 17479 REPORT YEAR: 1988, 26 Pages, 3 Map(s)

OPERATOR(S): **Coronado Res.**
AUTHOR(S): Dircks, N.
MINING DIV: Greenwood
LOCATION: NTS 082E02E LAT. 49 11 30 LONG. 118 44 00
CLAIM(S): Gen,Nicole
EXPL. TARGET: Copper,Gold,Silver
WORK DONE: EMGR 10.5 km; VLF - 1 Map(s); 1:5000
GEOL 500.0 ha - 1 Map(s); 1:5000
SOIL 405 sample(s);CU,ZN,AG - 1 Map(s); 1:5000

GEOLOGY: The Gen and Nicole claims are within a northwest trending belt of Late Paleozoic Anarchist Group volcanic and sedimentary rocks, and Cretaceous Nelson granitic intrusives. Eocene Kettle River Formation and Marron Formation rocks also occur in the area. Mineralization is extensive throughout the belt and consists of (1) precious metal-bearing narrow quartz veins, (2) skarn copper, and (3) massive sulphides.

RELATED A.R.: 12007, 14274

Phoenix A.R. 16976 REPORT YEAR: 1988, 47 Pages, 6 Map(s)

OPERATOR(S): **Vikon Int. Res.**
AUTHOR(S): Sookochoff, L.
MINING DIV: Greenwood
LOCATION: NTS 082E02E LAT. 49 03 00 LONG. 118 34 00
CLAIM(S): Attwood 5-10,Add 1
EXPL. TARGET: Gold,Copper
WORK DONE: SOIL 721 sample(s);ME - 6 Map(s); 1:5000

GEOLOGY: Permo-carboniferous limestone, argillite and chert of the Attwood Group are underlain by sharpstone conglomerate and rocks of the Triassic Eholt Formation, Brooklyn Group. This "Stratigraphic reversal" is a result of regional thrust faulting.

Mineralization occurs mainly as fissure fillings and replacement sulphide veins along northwest trending shear zones hosted by oxidized and fractured argillite, chert and sharpstone conglomerate. Skarn deposits are confined to limestone.

MINFILE: 082ESE047, 082ESE182, 082ESE208

Pride of the West A.R. 17100 REPORT YEAR: 1988, 18 Pages, 1 Map(s)

OPERATOR(S): **Sookochoff Consul.**
AUTHOR(S): Sookochoff, L.
MINING DIV: Greenwood
LOCATION: NTS 082E02E LAT. 49 05 00 LONG. 118 35 00
CLAIM(S): Pride of the West
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: EMGR 3.5 km; VLF - 1 Map(s); 1:1250

GEOLOGY: The underlying rocks are mainly Permo-Carboniferous Attwood Group greenstone and Triassic Brooklyn Group sharpstone conglomerate and microdiorite. Major structures trend northerly and east-west. Mineralization consists of massive sulphides exposed in old workings.

Sappho A.R. 17617 REPORT YEAR: 1988, 15 Pages, 4 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Bradish, L. Keating, J.
MINING DIV: Greenwood
LOCATION: NTS 082E02E LAT. 49 02 13 LONG. 118 43 00
CLAIM(S): Liz,Ada
EXPL. TARGET: Gold
WORK DONE: EMGR 5.0 km;VLF - 2 Map(s); 1:2500
MAGG 5.0 km - 2 Map(s); 1:12 000,1:2500

GEOLOGY: The oldest rocks on the Boundary Creek grid are believed to be Knob Hill Group (Jurassic) andesites, which may in fact be members of the Triassic Brooklyn Group. These rocks are unconformably overlain by a package of Tertiary volcanics and sediments which have been intruded and/or overlain by a massive dioritic unit.

RELATED A.R.: 16215

Set A.R. 16829 REPORT YEAR: 1987, 54 Pages, 9 Map(s)

OPERATOR(S): **Ossa Res.**
AUTHOR(S): Sookochoff, L.
MINING DIV: Greenwood
LOCATION: NTS 082E02E LAT. 49 02 00 LONG. 118 37 00
CLAIM(S): Set 1,Set 4-5,Lookout
EXPL. TARGET: Lead,Zinc,Copper,Arsenic,Silver
WORK DONE: EMGR 33.0 km; VLF - 2 Map(s); 1:5000
MAGG 33.0 km - 1 Map(s); 1:5000
SOIL 776 sample(s);ME - 5 Map(s); 1:5000
TOPO 800.0 ha - 1 Map(s); 1:5000

GEOLOGY:

Predominantly underlain by the Triassic Eholt Formation of the Brooklyn Group consisting of greenstone, fragmental greenstone, argillite, chert and a basement complex of Carboniferous Knob Hill Formation meta-cherts and mica schists. Cretaceous serpentine-listwanite intrusives occur centrally. Varidirectional normal and thrust faults strike generally northwesterly with northerly dips. Skarn mineralization of gold-bearing sulphides hosted by northerly trending veins are up to 2.5 metres wide.

MINFILE: 082ESE

Tel A.R. 17579 REPORT YEAR: 1988, 34 Pages

OPERATOR(S): **Glendale Res.**
AUTHOR(S): Cummings, W.W.
MINING DIV: Greenwood
LOCATION: NTS 082E02E LAT. 49 10 00 LONG. 118 38 00
CLAIM(S): Tel 2,C.O.D.
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 904.0 m 10 hole(s);BQ ;AU,AG

GEOLOGY: The drilling area is underlain entirely by granodiorite, near the northerly contact of a Cretaceous Nelson batholith. Mineralization consists of quartz veins and silicified zones mineralized with pyrite, hematite, and rare galena and sphalerite. Wallrock alteration consists of feldspars altered to kaolin-sericite, and hematite is introduced.

RELATED A.R.: 11925

Wendy A.R. 17345 REPORT YEAR: 1987, 32 Pages, 2 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Gill, D.G.
MINING DIV: Greenwood
LOCATION: NTS 082E02E LAT. 49 05 11 LONG. 118 35 43
CLAIM(S): Wendy 13
EXPL. TARGET: Gold
WORK DONE: ROTD 54.9 m 1 hole(s) - 2 Map(s); 1:2500,1:250
SAMP 34 sample(s);AU
GEOLOGY: The drill hole collared and ended within Triassic Brooklyn Group sharpstone conglomerate. Anomalous gold values are associated with coarse-grained pyrite-pyrrhotite hosted in quartz-calcite vein material.
RELATED A.R.: 09817, 10588
MINFILE: 082ESE117

Yankee Girl A.R. 17565 REPORT YEAR: 1988, 44 Pages, 6 Map(s)

OPERATOR(S): **Redding Gold**
AUTHOR(S): Windsor, D.M.
MINING DIV: Greenwood
LOCATION: NTS 082E02E LAT. 49 02 00 LONG. 118 30 24
CLAIM(S): Yankee Girl,Bell
EXPL. TARGET: Gold
WORK DONE: EMGR 5.4 km;VLF - 4 Map(s); 1:2500
GEOL 50.0 ha - 1 Map(s); 1:2500
LINE 6.2 km
MAGG 6.2 km - 1 Map(s); 1:2500
ROCK 24 sample(s);AU,AG,CU,PB,ZN,MO,AS,FE
GEOLOGY: The property is situated immediately west of the Granby River fault. It is underlain by greenstone of the Permian Anarchist Group intruded by small Middle Jurassic granodiorite bodies, probably Nelson Plutonic Rocks (G.S.C. Map 6, 1957). Gold and silver mineralization occurs in 10 centimetre to 1 metre wide quartz filled fissures and highly fractured faults or shear zones which strike northeasterly or easterly and dip steeply to the north. Disseminated pyrite, chalcopyrite and galena occur along these zones.
MINFILE: 082ESE189

Camper A.R. 16940 REPORT YEAR: 1988, 27 Pages, 8 Map(s)

OPERATOR(S): **Int. Black Gold Res.**
AUTHOR(S): Verzosa, R.S.
MINING DIV: Greenwood
LOCATION: NTS 082E02W, 082E07W LAT. 49 14 44 LONG. 118 50 00
CLAIM(S): Camper,Camper 2
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: EMGR;VLF - 1 Map(s); 1:2500
MAGG - 1 Map(s); 1:2500
SOIL;CU,PB,ZN,AG,AS,AU - 6 Map(s); 1:2500
GEOLOGY: Up to 6 metre quartz veins trend northerly in Cretaceous-Jurassic Nelson Plutonic Rocks. The veins may contain disseminations to pockets of pyrite and lesser galena.

Louise A.R. 17549 REPORT YEAR: 1988, 56 Pages, 7 Map(s)

OPERATOR(S): **Pricam Ex.**
AUTHOR(S): Sookochoff, L.
MINING DIV: Greenwood
LOCATION: NTS 082E02W LAT. 49 07 55 LONG. 118 51 26
CLAIM(S): Prince of Wales,Princess Louise,Louise 87
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: SOIL 996 sample(s);ME - 7 Map(s); 1:5000
GEOLOGY: The claims are underlain by the Permian-Carboniferous Knob Hill Group of greenstone, chert and argillite with lesser limy sediments. Localized outcrops of the Kettle River Formation and scattered outcrops of Tertiary Marron intrusives occur. The major structure is the Wallace Creek fault traversing east through the northern portion of the property. Alteration consisting of jarosite, ankerite, carbonate, silica and pyrite is associated with mineralization at the Prince of Wales shaft.

Rainbow (Midway Mine) A.R. 17162 REPORT YEAR: 1988, 143 Pages, 5 Map(s)

OPERATOR(S): **BP Res. Can.**
AUTHOR(S): Wong, R.H. Hoffman, S.J.
MINING DIV: Greenwood
LOCATION: NTS 082E02W LAT. 49 02 21 LONG. 118 48 56
CLAIM(S): Annex,Graham Camp,Midway,M.F.
EXPL. TARGET: Gold,Silver,Arsenic
WORK DONE: DIAD 159.4 m 2 hole(s);NQ - 2 Map(s); 1:500
GEOL 500.0 ha - 1 Map(s); 1:5000
ROCK 15 sample(s);ME
SAMP 65 sample(s);ME
SOIL 100 sample(s);ME - 2 Map(s);
GEOLOGY: Tertiary chalcedonic quartz veins from 10 centimetres to 2 metres in width are sporadically anomalous in gold, silver, arsenic and antimony and occur within Jurassic serpentinite and Upper Cretaceous-Tertiary dacite porphyry. The main structural controls are high angle, north-northeast trending faults which comprise the western margin of the Toroda Graben and shallow north dipping features associated with the serpentinite.
RELATED A.R.: 11466, 13561
MINFILE: 082ESE128

DWS A.R. 16883 REPORT YEAR: 1987, 15 Pages

OPERATOR(S): **Davies, D.W.S.**
AUTHOR(S): Davies, D.W.S.
MINING DIV: Greenwood
LOCATION: NTS 082E03E LAT. 49 04 58 LONG. 119 00 32
CLAIM(S): D.W.S. No. 2
WORK DONE: ROCK 16 sample(s);CR,AU,PT
SOIL 5 sample(s);CR
GEOLOGY: Early geological mapping shows this area to be part of the Permian Anarchist Group. The gabbro-diorite rock of the Anarchist Group is also in evidence on these claims. A large zone (500 metres in length and 50 metres in width, approximately) of serpentinized ultramafic rock contains nickel silicate.
RELATED A.R.: 08791, 09737, 10913, 12381, 14333, 15027
MINFILE: 082ESW149

Elk A.R. 17611 REPORT YEAR: 1988, 47 Pages, 1 Map(s)

OPERATOR(S):	**Stenhouse, B.R.**	
AUTHOR(S):	Stenhouse, B.R.	
MINING DIV:	Greenwood	
LOCATION:	NTS 082E03E	LAT. 49 09 07 LONG. 119 10 05
CLAIM(S):	Elk 1	
WORK DONE:	PROS 50.0 ha - 1 Map(s); 1:1563	
GEOLOGY:	A band of pinkish quartzites of the Permian Anarchist Group trends east through the southern two units of the claim.	

Goldhill A.R. 16975 REPORT YEAR: 1987, 21 Pages, 7 Map(s)

OPERATOR(S):	**Wapiti Ex.**	
AUTHOR(S):	Peto, P.	
MINING DIV:	Greenwood	
LOCATION:	NTS 082E03E	LAT. 49 06 43 LONG. 119 12 37
CLAIM(S):	Billie,Lou,Doreen	
EXPL. TARGET:	Gold,Silver	
WORK DONE:	EMGR 44.0 km;VLF - 4 Map(s); 1:2000	
	GEOL 450.0 ha - 2 Map(s); 1:2000	
	LINE 45.0 km	
	ROAD 3.3 km	
	ROCK 40 sample(s);AU	
	SPOT 13.6 km - 1 Map(s); 1:2000	
	TREN 112.0 m 20 trench(es)	
GEOLOGY:	Five distinct quartz veins cut Permian Anarchist Group greenstones and quartzites and occur in easterly trending graphitic shear zones. Mineralization consists of pyrite and minor galena with modest gold and silver values. Weak wall rock alteration is evident. The quartz veins have widths to 2 metres and a strike length up to 100 metres and are possibly related to the Cariboo-Amelia vein.	
RELATED A.R.:	16168	
MINFILE:	082ESW043, 082ESW044, 082ESW045	

Gordon (Chris) A.R. 17236 REPORT YEAR: 1988, 12 Pages

OPERATOR(S):	**Craney, J. Whatley, G.**	
AUTHOR(S):	Dupras, A.	
MINING DIV:	Greenwood	
LOCATION:	NTS 082E03E	LAT. 49 08 20 LONG. 119 09 53
CLAIM(S):	Chris 3-8	
EXPL. TARGET:	Gold,Copper,Silver,Lead,Zinc	
WORK DONE:	LINE 1.5 km	
	PROS 50.0 ha	
	ROAD 0.1 km	
	TREN 60.0 m 7 trench(es)	
GEOLOGY:	Interbedded and locally banded and folded quartzite and greenstone belonging to the Permian Anarchist Group are intruded by plutonic rocks belonging to the Cretaceous Osoyoos Batholith.	

Jolly A.R. 18186 REPORT YEAR: 1988, 14 Pages, 6 Map(s)

OPERATOR(S):	**Minnova**	
AUTHOR(S):	Evans, G.W.	
MINING DIV:	Greenwood	
LOCATION:	NTS 082E03E	LAT. 49 07 00 LONG. 119 08 00
CLAIM(S):	CH,AH,HO,DB 1,BR Fr.,Victoria,Old England,Snowden,Lemon	
EXPL. TARGET:	Gold,Silver,Copper,Lead,Zinc	
WORK DONE:	EMGR 16.5 km;VLF - 4 Map(s); 1:2500	
	LINE 18.4 km	
	MAGG 16.5 km - 2 Map(s); 1:2500	
GEOLOGY:	The property is underlain by Triassic to Permian Anarchist Group rocks. These consist of sediments, mafic volcanics and diorites which are intruded by Mesozoic intrusives. North-south, and east-west structures control carbonate alteration and silicification with gold, silver, copper and lead mineralization. Numerous old workings exist on the property which is part of the Mt. McKinney camp.	
RELATED A.R.:	07636, 09498, 15256, 16653	
MINFILE:	082ESW021, 082ESW128, 082ESW129	

McKinney A.R. 16775 REPORT YEAR: 1987

OPERATOR(S):	**Ark Energy**	
AUTHOR(S):	Sandner, S.L.	
MINING DIV:	Greenwood	
LOCATION:	NTS 082E03E	LAT. 49 06 58 LONG. 119 11 03
CLAIM(S):	Lots 272-274,Lot 856,Lot 952	
WORK DONE:	GEOL	
	META 9 sample(s);Bulk	
	RECL	
GEOLOGY:	The claims are underlain by northwest striking interbanded greenstones and quartzites of the Permian Anarchist Group.	

Ray A.R. 17109 REPORT YEAR: 1988, 40 Pages, 1 Map(s)

OPERATOR(S):	**Granges Ex.**	
AUTHOR(S):	Nauss, A. Zbitnoff, G.W.	
MINING DIV:	Osoyoos	
LOCATION:	NTS 082E03E	LAT. 49 11 30 LONG. 119 13 00
CLAIM(S):	Ray 1,Ray 3	
EXPL. TARGET:	Chromium/Chromite	
WORK DONE:	DIAD 741.6 m 16 hole(s); NQ - 1 Map(s); 1:2500	
	SAMP 71 sample(s);CR,PT,PD,FE	
GEOLOGY:	Drilling intersected foliated serpentinite showing talc alteration, diorite, monzonite and gneissic rocks showing chlorite alteration and quartz veinlets. The serpentinite contains pods and lenses of chromite.	
RELATED A.R.:	16172	
MINFILE:	082ESW025	

Rice A.R. 17176 REPORT YEAR: 1988, 20 Pages, 1 Map(s)

OPERATOR(S):	**Rex Silver Mines**	
AUTHOR(S):	MacDonald, R. Fox, P.E.	
MINING DIV:	Greenwood	
LOCATION:	NTS 082E03E	LAT. 49 05 42 LONG. 119 09 30
CLAIM(S):	Rice 1-4	
EXPL. TARGET:	Gold,Copper	
WORK DONE:	LINE 72.3 km	
	ROCK 6 sample(s);ME	
	SOIL 608 sample(s);ME - 1 Map(s); 1:10 000	
GEOLOGY:	The property is underlain by a package of Permian Anarchist Group greenstones, cherts, argillites and quartzites in contact with Juro-Cretaceous Nelson Plutonic Rocks. Mineralization occurs as sulphide	

	disseminations and stringers with associated gold and silver in quartz veins and as replacement bodies in shear zones along the fault contact of the two rock units.	
RELATED A.R.:	12368	
MINFILE:	082ESW118	

Sailor A.R. 17815 REPORT YEAR: 1988, 41 Pages, 7 Map(s)

OPERATOR(S):	**Nexus Res.**	
AUTHOR(S):	Walker, J.E.	
MINING DIV:	Greenwood	
LOCATION:	NTS 082E03E	LAT. 49 06 36 LONG. 119 11 24
CLAIM(S):	Minnie Ha-Ha,Sailor,Diamond,Toledo,Snowshoe,Rover Fr.,Cariboo Fr.,Kamloops	
EXPL. TARGET:	Gold,Silver,Copper,Lead,Zinc	
WORK DONE:	LINE 13.5 km	
	ROCK 31 sample(s);ME - 1 Map(s); 1:2000	
	SOIL 206 sample(s);ME - 6 Map(s); 1:2000	
GEOLOGY:	Late Permian to Early Triassic Anarchist Group rocks host quartz veins along an east trending fracture set. Mineralization consists of free gold with minor pyrite, sphalerite, galena, and chalcopyrite. Grades of up to 119 grams per tonne gold have been noted.	
RELATED A.R.:	08153, 09840	
MINFILE:	082ESW045, 082ESW046	

Tu A.R. 17924 REPORT YEAR: 1988, 28 Pages

OPERATOR(S):	**Tu-Tahl Petr.**	
AUTHOR(S):	Jones, H.M.	
MINING DIV:	Greenwood	
LOCATION:	NTS 082E03E	LAT. 49 01 20 LONG. 119 11 15
CLAIM(S):	Tu 1-2	
EXPL. TARGET:	Chromium/Chromite	
WORK DONE:	MAGG 3.3 km	
	SOIL 252 sample(s);AU,AG,PT,CR	
GEOLOGY:	The property is underlain by Anarchist Group rocks which includes quartzite, shale, limy quartzite and limestone. Irregular pods of chromite occur within contorted, locally brecciated limestone.	
MINFILE:	082ESW121	

Fairview A.R. 16779 REPORT YEAR: 1987

OPERATOR(S):	**Highland Valley Res.**	
AUTHOR(S):	Mehner, D.T.	
MINING DIV:	Osoyoos	
LOCATION:	NTS 082E04E	LAT. 49 11 43 LONG. 119 37 25
CLAIM(S):	Brown Bear,Stemwinder,Gunsite,Wynne M,Virginia,Oro Bastante	
WORK DONE:	GEOL 5.0 ha	
	LINE 8.0 km	
	ROCK 602 sample(s);AU,AG,CU,PB,ZN	
	ROTD 2595.4 m 17 hole(s)	
	SAMP 328 sample(s);AU,AG	
	TREN 100.0 m 8 trench(es)	
GEOLOGY:	Rock sampling of surface showings and underground workings along the Fairview vein system indicates gold-rich zones occur in the hanging wall and main veins. Rotary drilling intersected significant quartz vein widths and values.	
RELATED A.R.:	10205, 11364, 12646, 15770	

Fairview A.R. 16723 REPORT YEAR: 1987

OPERATOR(S):	**Oliver Gold Corporation**	
AUTHOR(S):	Mehner, D.T.	
MINING DIV:	Osoyoos	
LOCATION:	NTS 082E04E	LAT. 49 12 07 LONG. 119 38 19
CLAIM(S):	Lot 554,Lot 574,Lot 1085-1087,Lot 1978,Lot 2055,Lot 3274	
WORK DONE:	DIAD 527.3 m 4 hole(s);NQ	
	EMGR 28.0 km;VLF	
	GEOL 25.0 ha	
	LINE 8.2 km	
	META 6 sample(s)	
	PETR 4 sample(s)	
	RECL	
	ROCK 571 sample(s);AU,AG	
	SAMP 145 sample(s);CU,PB,ZN,AU,AG	
	SOIL 213 sample(s);AU,AG	
	UNDD 418.3 m 6 hole(s);AQ	
	UNDV 22.9 m	
GEOLOGY:	At the Fairview Mine, gold mineralization occurs in quartz veins which lie within a biotite +/- sericite quartzite sequence that contains minor sericite +/- chlorite schists, felsic sills and andesite-quartz feldspar porphyry sills. Many of the sills are strongly altered having chloritized or leached out mafics, clay or sericite altered feldspars and fracture controlled fuchsite, sulphides and quartz veining.	

Bell-Juniper A.R. 17300 REPORT YEAR: 1988, 44 Pages, 2 Map(s)

OPERATOR(S):	**Lone Jack Res.**	
AUTHOR(S):	Crooker, G.F.	
MINING DIV:	Osoyoos	
LOCATION:	NTS 082E04W, 082E05W	LAT. 49 14 41 LONG. 119 49 44
CLAIM(S):	Bell,Juniper,Juniper 1-3	
EXPL. TARGET:	Copper,Gold,Silver	
WORK DONE:	LINE 16.6 km	
	MAGG 16.6 km - 1 Map(s); 1:5000	
	SOIL 80 sample(s);AU - 1 Map(s); 1:5000	
GEOLOGY:	Sedimentary and volcanic rocks of the Middle to Late Triassic Apex Mountain Group have been intruded by ultramafic to alkalic rocks of the Jurassic(?) Olalla stock. Gold, silver and copper mineralization on the property is related to skarns, shears and narrow quartz veinlets.	
RELATED A.R.:	12088, 14767	
MINFILE:	082ESW170	

Gil A.R. 17701 REPORT YEAR: 1988, 17 Pages, 4 Map(s)

OPERATOR(S):	**Minnova**	
AUTHOR(S):	Gilmour, W.R.	
MINING DIV:	Osoyoos	
LOCATION:	NTS 082E04W	LAT. 49 08 50 LONG. 119 55 44
CLAIM(S):	Gil 1-2	
EXPL. TARGET:	Tungsten,Molybdenum/Molybdenite,Arsenic,Copper,Gold	
WORK DONE:	GEOL;B ,ZN	
	SOIL 171 sample(s);AU,AG,AS,BO,CU,PB,SB,ZN - 4 Map(s); 1:5000	
GEOLOGY:	The property is underlain by metamorphosed sedimentary and volcanic rocks of the Triassic Old Tom and Shoemaker Formations. Minor Mesozoic intrusive rocks also occur. Rock types include	

greenstone pyroclastic and flow rocks, argillite, calc-silicate skarns and felsic and dioritic intrusive bodies. These rocks have commonly been brecciated. Pyrite, pyrrhotite, scheelite, sphalerite, molybdenite and chalcopyrite mineralization is associated with skarn zones and argillites.

RELATED A.R.: 05573, 05677, 05787, 06191, 06557, 07614, 11891
MINFILE: 082ESW122

Vault A.R. 17293 REPORT YEAR: 1988, 62 Pages, 9 Map(s)

OPERATOR(S): **Can. Nickel**
AUTHOR(S): Groeneweg, W.
MINING DIV: Osoyoos
LOCATION: NTS 082E05E LAT. 49 22 12 LONG. 119 36 22
CLAIM(S): Vault 1
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 2483.9 m 6 hole(s);NQ - 9 Map(s); 1:4000,1:1000
SAMP 232 sample(s);ME
GEOLOGY: The claims are underlain by porphyritic trachyte flows of the Marron Formation, trachytic pyroclastics and very fine-grained flows of the Marama Formation and lahars, volcanic flows and tuffs of the White Lake Formation. All formations are of Eocene age. The rocks are cut by a northeast fault and by east trending fractures. Epithermal gold-silver veins and veinlets occupy the east trending fractures where they cut the Marron and Lower Marama Formation.
RELATED A.R.: 10968, 12487, 15595
MINFILE: 082ESW173

Cliff A.R. 17648 REPORT YEAR: 1988, 82 Pages, 2 Map(s)

OPERATOR(S): **Goldcliff Res.**
AUTHOR(S): Crooker, G.F.
MINING DIV: Osoyoos
LOCATION: NTS 082E05W LAT. 49 16 00 LONG. 119 52 00
CLAIM(S): Cliff,Cliff 2,Great Eastern
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: EMGR 19.0 km; VLF - 2 Map(s); 1:2500
GEOL 70.0 ha
LINE 6.0 km
MAGG 4.0 km
ROCK 7 sample(s);ME
SOIL 209 sample(s);ME
GEOLOGY: The property is located within the Intermontane belt of British Columbia. An ultramafic stock of Jurassic age has intruded marine sedimentary and volcanic rocks of the Triassic Apex Mountain Group. Gold mineralization is associated with brecciation quartz stockworks and carbonatization.
MINFILE: 082ESW017

Dividend A.R. 16796 REPORT YEAR: 1987, 31 Pages, 9 Map(s)

OPERATOR(S): **Reichert, L.**
AUTHOR(S): Reichert, L.
MINING DIV: Osoyoos
LOCATION: NTS 082E05W LAT. 49 22 24 LONG. 119 51 33
CLAIM(S): Blacks Camp,Dividend
EXPL. TARGET: Gold,Copper,Tungsten
WORK DONE: LINE 35.3 km - 1 Map(s); 1:2000
MAGG 25.5 km - 6 Map(s); 1:2000
PROS 81.0 ha - 1 Map(s); 1:2000
SOIL 90 sample(s);AU - 1 Map(s); 1:2000
GEOLOGY: Triassic sediments are cut by a post-Triassic granodiorite. A linear zone of pyrrhotite lenses and disseminations with copper, gold and tungsten mineralization occurs. The zone dips near vertical with northerly strikes. Skarn-type alteration is evident.
RELATED A.R.: 10092
MINFILE: 082ESW053

Golden Plug A.R. 17843 REPORT YEAR: 1988, 25 Pages

OPERATOR(S): **Green Lake Res.**
AUTHOR(S): Vandeguchte, M.
MINING DIV: Osoyoos
LOCATION: NTS 082E05W LAT. 49 18 20 LONG. 119 46 00
CLAIM(S): Golden Plug
EXPL. TARGET: Zinc,Lead,Gold
WORK DONE: DIAD 366.7 m 1 hole(s);NQ
SAMP 25 sample(s);ME
GEOLOGY: The property lies on the western margin of the White Lake basin volcanic-sedimentary complex, which is developed on a variety of pre Tertiary rocks of the Shoemaker and Old Tom formations. The drill target was a neck or feeder of altered rhyolite of Ollala age(?). Minor sphalerite, galena and chalcopyrite was encountered.
RELATED A.R.: 13611, 15517
MINFILE: 082ESE056

Kero A.R. 16945 REPORT YEAR: 1988, 17 Pages, 5 Map(s)

OPERATOR(S): **Grand National Res.**
AUTHOR(S): Borovic, I.
MINING DIV: Osoyoos
LOCATION: NTS 082E05W LAT. 49 20 08 LONG. 119 50 58
CLAIM(S): Laredo
EXPL. TARGET: Copper,Gold,Silver,Zinc,Lead
WORK DONE: LINE 8.6 km
SOIL 176 sample(s);CU,PB,ZN,AG,AU - 5 Map(s); 1:5000
GEOLOGY: The claims are underlain by sediments and volcanic rocks of the Triassic Shoemaker and Old Tom Formations and Jurassic limestones intruded by Cretaceous-Jurassic Nelson granite-granodiorites. The strike of the sediments is northeast with dips to the southeast. Paleocene-Eocene sediments and volcanics unconformably overlie the Shoemaker and Old Tom Formations.
RELATED A.R.: 13448

Kero A.R. 17476 REPORT YEAR: 1988, 23 Pages

OPERATOR(S): **Grand National Res.**
AUTHOR(S): Borovic, I.
MINING DIV: Osoyoos
LOCATION: NTS 082E05W LAT. 49 20 30 LONG. 119 49 00
CLAIM(S): Kero 1-4
EXPL. TARGET: Copper,Gold,Silver,Lead,Zinc
WORK DONE: EMGR 4.4 km; VLF
LINE 5.5 km
SOIL 96 sample(s);CU,PB,ZN,AG,AU
GEOLOGY: Cherts, tuffs and greenstones of the Shoemaker and Old Tom formations of Triassic or earlier age, and Jurassic limestones

outcrop on the property. These rocks are intruded by Cretaceous granites and granodiorites of the Nelson Plutonic Complex. Paleocene sediments and Eocene volcanics cap the older units. The sedimentary rocks strike northeast-southwest and dip moderately to the southeast.

RELATED A.R.: 13905

Kero A.R. 16944 REPORT YEAR: 1988, 30 Pages

OPERATOR(S): **Grand National Res.**

AUTHOR(S): Borovic, I.

MINING DIV: Osoyoos

LOCATION: NTS 082E05W LAT. 49 18 15 LONG. 119 49 58

CLAIM(S): Buckshot 2

EXPL. TARGET: Copper,Zinc,Silver,Gold

WORK DONE:
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EMGR;VLF
LINE
SOIL;CU,ZN,AG,AU,MO
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GEOLOGY: Triassic sediments and volcanic rocks of the Shoemaker Formation have been intruded by granitic rocks of the Cretaceous-Jurassic Nelson Plutonic Rocks. Skarn with associated sulphide mineralization is locally developed along this contact.

RELATED A.R.: 12841

MINFILE: 082ESW168

Nickel Plate-John A.R. 16913 REPORT YEAR: 1988, 78 Pages, 3 Map(s)

OPERATOR(S): **Lacana Min.**

AUTHOR(S): Johnson, D.L.

MINING DIV: Osoyoos

LOCATION: NTS 082E05W LAT. 49 23 00 LONG. 119 59 00

CLAIM(S): John,R.J.

EXPL. TARGET: Gold

WORK DONE:
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DIAD     683.0 m     5 hole(s);NQ   - 1  Map(s); 1:10 000
ROAD       2.1 km
SAMP     378 sample(s);AU
TREN     400.0 m     8 trench(es) - 2  Map(s); 1:2500
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GEOLOGY: The southern portion of the property is underlain by pendant(s) of the Hedley metasedimentary rocks and granodiorite. The intrusive-metasedimentary contact is marked by small, apparently barren skarn zones. In the Jim Group area a recent (?) landslide debris unit covers "Cahill" intrusive rocks. In the northern part of the claims the 'Whistle Creek' sequence is weakly altered to skarn with abundant sulphides, mostly pyrrhotite.

Puma A.R. 16807 REPORT YEAR: 1987, 28 Pages, 2 Map(s)

OPERATOR(S): **Grand National Res.**

AUTHOR(S): Seyward, M.

MINING DIV: Osoyoos

LOCATION: NTS 082E05W LAT. 49 24 03 LONG. 119 49 53

CLAIM(S): Puma 4-5

EXPL. TARGET: Gold,Silver,Copper

WORK DONE:
```
IPOL       8.5 km - 2  Map(s); 1:2500
```

GEOLOGY: The property is underlain by the Triassic Independence, Shoemaker and Old Tom Formations. The Shoemaker and Independence Formations consist of interbedded cherts and greenstones intruded by diorite while the Old Tom Formation consists of greenstone with minor diorite.

Snow Leopard A.R. 17169 REPORT YEAR: 1987, 29 Pages, 1 Map(s)

OPERATOR(S): **Medina Res.**

AUTHOR(S): O'Neill, D.M.

MINING DIV: Osoyoos

LOCATION: NTS 082E05W LAT. 49 17 13 LONG. 119 56 16

CLAIM(S): Ape

EXPL. TARGET: Gold

WORK DONE:
```
GEOL     225.0 ha - 1  Map(s); 1:5000
SILT      32 sample(s);ME
SOIL      96 sample(s);ME
```

GEOLOGY: The property is underlain by greenstone of the Triassic Old Tom Formation. Outcrops of red, bedded jasper and buff bedded chert occur in the northeast part of the claims. Minor limestone is associated with less altered andesite. The northeast corner of the Ape claim is underlain by greenstone and chert of the Triassic Shoemaker Formation which have been intruded by a small diorite body. Mineralization occurs in chert in proximity to the diorite body and consists of arsenopyrite and pyrite.

RELATED A.R.: 13980

Beaverdell A.R. 16771 REPORT YEAR: 1987

OPERATOR(S): **Teck**

AUTHOR(S): Murton, J.W.

MINING DIV: Greenwood

LOCATION: NTS 082E06E LAT. 49 25 56 LONG. 119 03 30

CLAIM(S): Lots 2092-2093,Lot 2341,Lots 2343-2344,Lot 2362,Lot 1205s,Lot 3294s

WORK DONE:
```
DIAD     686.0 m     16 hole(s)
RECL
ROAD       1.1 km
ROCK      62 sample(s);AG,AU
SAMP     400 sample(s);AG,AU
STRI       1.0 ha
TREN     277.0 m      8 trench(es)
UNDD    4575.0 m    110 hole(s);EX
```

GEOLOGY: Diamond drilling has resulted in an increase in ore reserves where several intersections of ore are currently being mined.

Lucky Boy A.R. 17921 REPORT YEAR: 1988, 211 Pages, 21 Map(s)

OPERATOR(S): **Dryden Res.**

AUTHOR(S): Leriche, P.D.

MINING DIV: Greenwood

LOCATION: NTS 082E06E LAT. 49 28 00 LONG. 119 07 00

CLAIM(S): Jamie I,Jordan I,Olympic,Lucky Boy,Glory,Ideal,Tie,Glory Fr.

EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc

WORK DONE:
```
EMGR      31.5 km;VLF  - 2  Map(s); 1:5000
GEOL     500.0 ha - 6  Map(s); 1:200,1:5000
IPOL      31.5 km - 2  Map(s); 1:2500
LINE      31.5 km
MAGG      31.5 km - 2  Map(s); 1:5000
PETR       5 sample(s)
ROCK      87 sample(s);AU,AG,ME - 2  Map(s); 1:5000
SOIL     537 sample(s);AU,ME - 7  Map(s); 1:5000
TREN     110.0 m      3 trench(es)
```

GEOLOGY: The property is underlain by Permian to Triassic metavolcanics and sediments which are intruded by Cretaceous granitic rocks. Quartz veins have been emplaced along 260 degree fractures and are

mineralized with pyrite, chalcopyrite, sphalerite and galena.
MINFILE: 082ESW

Queen of Shieba A.R. 17497 REPORT YEAR: 1988, 41 Pages, 6 Map(s)

OPERATOR(S): **Andromeda Ventures**
AUTHOR(S): Sookochoff, L.
MINING DIV: Greenwood
LOCATION: NTS 082E06E LAT. 49 28 00 LONG. 119 04 00
CLAIM(S): Shieba,Springfield,King Soloman,Queen of Shieba,Jumbo Fr.
EXPL. TARGET: Silver,Gold,Copper,Zinc
WORK DONE: SOIL 440 sample(s);ME - 6 Map(s); 1:5000
GEOLOGY: The claims are underlain by Cretaceous Nelson Plutonic rocks with small areas of Permian Anarchist Group sediments. Mineralization consists chiefly of pyrite with lesser sphalerite and galena carrying gold and silver values and minor amounts of chalcopyrite and molybdenite in a gangue of quartz-ankerite.
MINFILE: 082E

W A.R. 17191 REPORT YEAR: 1988, 22 Pages, 1 Map(s)

OPERATOR(S): **Morrison, M.S.**
AUTHOR(S): Morrison, M.S.
MINING DIV: Greenwood
LOCATION: NTS 082E06E LAT. 49 27 07 LONG. 119 07 30
CLAIM(S): W 3
EXPL. TARGET: Silver
WORK DONE: BIOG 115 sample(s);ME - 1 Map(s); 1:2500
GEOLOGY: Massive granodiorite of the Cretaceous-Jurassic Nelson Plutonic Rocks are cut by a strong, 1 to 2 metre wide shear zone crossing the W 1-2 property (immediately north of the W 3 mineral claim) for at least 300 metres at 080 degrees. The zone dips vertically. Vuggy quartz veins 5-50 centimetres in width fill the shear locally. Mineralization consists of pockets of pyrite, galena and sphalerite within or adjacent the quartz. Silver assays range from 60 to 300 grams per tonne, while gold assays range from 3 to 15 grams per tonne. Saussuritization extends 0.5 metres on either side of the shear, while chlorite alteration extends up to 3 metres. Parallel structures are expected on the W 3 & 4 claims.
MINFILE: 082ESW146

Wallace Mountain A.R. 16772 REPORT YEAR: 1987

OPERATOR(S):
AUTHOR(S): Murton, J.W. IGF Metals
MINING DIV: Greenwood
LOCATION: NTS 082E06E LAT. 49 25 41 LONG. 119 03 53
CLAIM(S): Rob Roy,Kokomo Fr.,Tiger,Castor Fr.,Black Pine
WORK DONE:
DIAD 101.8 m 3 hole(s);BQ
LINE 64.0 km
RECL
ROCK 80 sample(s);AU,AG,PB,ZN
SAMP 2 sample(s);AU,AG,PB,ZN
SOIL 1745 sample(s);AG,AU,AS
STRI 1.0 ha
GEOLOGY: The area is underlain primarily by the Westkettle Batholith of Jurassic age. This large intrusive body contains roof pendants of the Permian Wallace Group, and has been intruded by the Early Tertiary Beaverdell stock. Mineralization consisting of galena, sphalerite and pyrite occur in quartz veins occupying fissures.

Shut A.R. 17354 REPORT YEAR: 1988, 28 Pages

OPERATOR(S): **Crooker, G.F.**
AUTHOR(S): Crooker, G.F.
MINING DIV: Osoyoos
LOCATION: NTS 082E06W LAT. 49 19 10 LONG. 119 29 17
CLAIM(S): Shut
EXPL. TARGET: Asbestos,Platinum
WORK DONE:
LINE 10.4 km
MAGG 10.4 km
GEOLOGY: An irregular mass of dunite measuring approximately 800 metres long, 213 metres wide and 30 metres thick intrudes Precambrian or later Monashee Group gneiss. Asbestos occurs within the dunite. The dunite is also considered to be a possible source for platinum reported in Shuttleworth Creek.
MINFILE: 082ESW110, 082ESW127

Venner A.R. 17327 REPORT YEAR: 1988, 71 Pages, 5 Map(s)

OPERATOR(S): **Tigris Min.**
AUTHOR(S): Peto, P.
MINING DIV: Osoyoos
LOCATION: NTS 082E06W LAT. 49 17 08 LONG. 119 18 02
CLAIM(S): Venner,Gold
EXPL. TARGET: Gold,Silver
WORK DONE:
DIAD 531.6 m 9 hole(s);NQ - 2 Map(s); 1:500
EMGR 12.5 km;VLF - 1 Map(s); 1:625
MAGG 3.8 km - 1 Map(s); 1:2000
ROCK 251 sample(s);AU
SAMP 284 sample(s);AU
TREN 550.0 m 22 trench(es) - 1 Map(s); 1:500
GEOLOGY: An east trending quartz-carbonate vein, dipping steeply southward, about 0.5-1.5 metres wide, cuts andesites and rhyolites and carries modest gold values (>3.42 grams per tonne). The vein has been disrupted by a late fault which also strikes easterly with shallow dips southward. Host rocks belong to the Tertiary Penticton Group.
RELATED A.R.: 05009, 05702, 05886
MINFILE: 082ESW112

Barnato A.R. 18178 REPORT YEAR: 1988, 24 Pages

OPERATOR(S): **Carmac Res.**
AUTHOR(S): Gilmour, W.R. Duba, D.
MINING DIV: Greenwood
LOCATION: NTS 082E07W LAT. 49 27 30 LONG. 118 54 18
CLAIM(S): Boston,Houston,Kingston,Pot 1-2
EXPL. TARGET: Gold
WORK DONE: SOIL 156 sample(s);ME
GEOLOGY: Property is underlain by intermediate to acidic volcanic and volcaniclastic rocks of probable Permian Anarchist Formation (?). These layered rocks have been intruded by Jurassic to Cretaceous quartz diorite bodies and dykes. Pyrite, pyrrhotite and arsenopyrite, with minor sphalerite, chalcopyrite and galena, occur in the volcanic and intrusive rocks. This gold-bearing mineralization occurs as siliceous irregular veins, veinlets and segregations.

RELATED A.R.: 17421
MINFILE: 082ESE109

Boston A.R. 17421 REPORT YEAR: 1988, 20 Pages

OPERATOR(S): **Carmac Res.**
AUTHOR(S): Gilmour, W.R.
MINING DIV: Greenwood
LOCATION: NTS 082E07W LAT. 49 27 30 LONG. 118 54 18
CLAIM(S): Boston,Houston
EXPL. TARGET: Copper,Lead,Zinc
WORK DONE: SOIL 59 sample(s);ME
GEOLOGY: The property is underlain by volcanic and volcaniclastic rocks of the Anarchist Formation (Permian) which are intruded by Jurassic or Cretaceous quartz diorite.

Volcano A.R. 16475 REPORT YEAR: 1987, 12 Pages

OPERATOR(S): **Houlind, G.**
AUTHOR(S): Stevenson, J.
MINING DIV: Greenwood
LOCATION: NTS 082E07W LAT. 49 27 06 LONG. 118 58 48
CLAIM(S): Volcano 1-2,Volcano 5-6
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold
WORK DONE: PROS 1.0 ha
SAMP 13 sample(s);CU,PB,ZN,AG,AU
TREN 102.0 m 3 trench(es)
GEOLOGY: The property is underlain by Nelson and Valhalla plutons of Cretaceous-Triassic age and by rocks of the Permian Anarchist Group. Mineralization occurs in northerly trending shears containing quartz-carbonate, galena, sphalerite, chalcopyrite, and malachite.
MINFILE: 082E

Platinum Blonde A.R. 17273 REPORT YEAR: 1988, 248 Pages, 44 Map(s)

OPERATOR(S): **Longreach Res.** **Placer Dome**
AUTHOR(S): Pinsent, R.H. Cannon, R.W.
MINING DIV: Greenwood
LOCATION: NTS 082E09W LAT. 49 34 27 LONG. 118 22 58
CLAIM(S): Pt,Joe,Joe 2,Pal,Plat,Alert,Ophir,Golden Age,Glouster Fr.,Franklin,Buffalo,Jimmy,AB 1-4, Dajg 1-5,Genie 1-6
EXPL. TARGET: Platinum,Palladium,Gold,Silver,Arsenic,Copper,Lead,Zinc
WORK DONE: DIAD 1209.0 m 10 hole(s);NQ
EMGR 182.0 km;VLF - 8 Map(s); 1:5000
GEOL 2000.0 ha - 4 Map(s); 1:5000,1:2500
LINE 182.0 km
MAGG 182.0 km - 6 Map(s); 1:5000
ROCK 295 sample(s);ME - 3 Map(s); 1:5000,1:2500
SAMP 405 sample(s);CU,ZN,PB,AG,AU,AS,PT,PD
SOIL 5230 sample(s);ME - 22 Map(s); 1:5000
TOPO 5625.0 ha - 1 Map(s); 1:10 000
GEOLOGY: The property is underlain by a multiphase alkaline plutonic complex. Syenite and pyroxenite locally contain a small amount of chalcopyrite which carries platinum and palladium. Hornfelsed volcanic strata adjacent to the plutonic complex are cut by a suite of precious and base metal bearing quartz veins immediately below an Eocene unconformity.
RELATED A.R.: 15746
MINFILE: 082ENE007, 082ENE008, 082ENE009, 082ENE042

Auriferous A.R. 16998 REPORT YEAR: 1987, 34 Pages, 5 Map(s)

OPERATOR(S): **Morrison, M.S.**
AUTHOR(S): Morrison, M.S.
MINING DIV: Greenwood
LOCATION: NTS 082E10W, 082E11E LAT. 49 31 50 LONG. 119 00 07
CLAIM(S): Auriferous 1-2
EXPL. TARGET: Gold
WORK DONE: BIOG 206 sample(s);ME - 2 Map(s); 1:2000
EMGR 11.3 km;VLF - 2 Map(s); 1:2000
GEOL 60.0 ha - 1 Map(s); 1:2000
GEOLOGY: Flat-lying(?) metavolcanics and metasediments of the Permian Anarchist Group are intruded by Cretaceous-Jurassic Nelson diorite and quartz diorite. Irregular quartz veins up to 30 centimetres in width containing pockets of massive pyrite and pyrrhotite cut both the Anarchist and Nelson rocks near the intrusive contact on the Rosemont Crown Grant, which is encircled by the Auriferous property. Gold assays of 16 grams per tonne are associated with the iron sulphides at the old Rosemont workings.
RELATED A.R.: 15439

Copket A.R. 17675 REPORT YEAR: 1988, 56 Pages, 3 Map(s)

OPERATOR(S): **Orion Res.**
AUTHOR(S): Whiting, F.B.
MINING DIV: Greenwood
LOCATION: NTS 082E10W LAT. 49 38 00 LONG. 118 49 00
CLAIM(S): Copket 2-3 Fr.,Copket Fr.,Copket 2,Copket 7-8,David 1-3
EXPL. TARGET: Copper,Zinc,Silver
WORK DONE: LINE 2.8 km
SOIL 355 sample(s);ME - 3 Map(s); 1:2500
GEOLOGY: The property is underlain by Permian Anarchist Formation limestone and clastic sediments which are intruded by Nelson granite, Valhalla granite, and Coryell dykes. Skarn occurrences carry bornite with gold and silver. Swirly-textured quartz and breccia carry sphalerite, chalcopyrite, pyrite with spotty gold and silver which is possibly epigenetic and of Tertiary age. Adjacent old workings and soil survey, outline a belt 500 metres long by 150 metres wide, open to the east and the north, with evidence of widespread copper-zinc-gold-silver, minor molybdenite and tungsten anomalies.
MINFILE: 082ENE011

Black A.R. 17030 REPORT YEAR: 1988, 23 Pages

OPERATOR(S): **Carson, J.** **Carson, E.**
AUTHOR(S): McLeod, J.W.
MINING DIV: Greenwood
LOCATION: NTS 082E11E LAT. 49 34 00 LONG. 119 05 00
CLAIM(S): Black,Black 2,RR 1,RR 3,RR 5,RR 7
EXPL. TARGET: Copper,Molybdenum/Molybdenite,Lead,Zinc,Tungsten,Silver,Gold
WORK DONE: PROS 500.0 ha
GEOLOGY: Permian and/or Triassic Anarchist Group sedimentary and volcanic rocks are intruded by the Cretaceous Nelson and/or Valhalla plutonic rocks. There are varying degrees and types of metamorphism and textural alteration. Chalcopyrite, molybdenite, galena, sphalerite, scheelite, and silver and gold values occur locally most often with quartz.

MINFILE: 082ENW

Marble A.R. 17756 REPORT YEAR: 1988, 29 Pages, 1 Map(s)

OPERATOR(S): **Jensen, E.**
AUTHOR(S): Jensen, E.
MINING DIV: Osoyoos
LOCATION: NTS 082E12W LAT. 49 42 00 LONG. 119 46 51
CLAIM(S): Marble I-IV,Marble VI-XII
EXPL. TARGET: Lead,Copper,Molybdenum/Molybdenite
WORK DONE: PROS - 1 Map(s); 1:5000
GEOLOGY: The claims are underlain by a pendant of schists, amphibolites and marbles bounded by Tertiary-Cretaceous syenites, diorites, granodiorites and quartz diorites.

Munro Lake A.R. 18171 REPORT YEAR: 1988, 71 Pages

OPERATOR(S): **Almaden Res.**
AUTHOR(S): Watt, D.D.
MINING DIV: Osoyoos
LOCATION: NTS 082E12W LAT. 49 43 00 LONG. 119 55 00
CLAIM(S): Rose,Rose 5
EXPL. TARGET: Silver,Gold,Copper,Molybdenum/Molybdenite,Zinc,Lead
WORK DONE: OBDR 296.0 m 34 hole(s)
ROAD 2.0 km
SAMP 75 sample(s);AU,AG,ZN,AS
GEOLOGY: Northeast trending, silicified shear zones in Late Cretaceous Valhalla granodiorite host moderate to high grade silver and gold values. Till concentrates have yielded results of up to 15 600 ppb gold and 1210 ppm silver from samples collected on the property. Known copper/molybdenum mineralization also occurs on the property associated with Tertiary quartz latite dykes.
RELATED A.R.: 05318, 06399, 06558, 10445, 15207, 16437
MINFILE: 082ENW021, 082ENW012

Vent A.R. 16845 REPORT YEAR: 1987, 38 Pages, 4 Map(s)

OPERATOR(S): **Morrison, M.S.**
AUTHOR(S): Morrison, M.S.
MINING DIV: Osoyoos
LOCATION: NTS 082E12W LAT. 49 33 15 LONG. 119 52 31
CLAIM(S): Vent 1-6
EXPL. TARGET: Gold
WORK DONE: GEOL 1050.0 ha - 3 Map(s); 1:5000
SOIL 220 sample(s);ME - 1 Map(s); 1:2500
GEOLOGY: The property covers the Riddle Creek Tertiary basin which is infilled with andesite, phonolite and trachyte flows and pyroclastics of the Eocene Marron Formation. The Tertiary volcanics have been gently folded into asymmetrical anticlines and synclines striking east-southeast. A thick (30 metre) tuffaceous unit lies at shallow depth below the uppermost trachyte flows over a 3 square kilometre area. The tuff is highly kaolinite altered and locally silicified, and it is thought that it may host epithermal gold mineralization near hydrothermal vents in a manner similar to that observed on the newly discovered Vault gold property at Okanagan Falls 30 kilometres to the southeast.
MINFILE: 082ENW071

Chris A.R. 17364 REPORT YEAR: 1988, 16 Pages

OPERATOR(S): **Stushnoff, J.**
AUTHOR(S): Stushnoff, J.
MINING DIV: Vernon
LOCATION: NTS 082E13E LAT. 49 57 00 LONG. 119 33 00
CLAIM(S): Chris 3A,Chris 3B
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 50.0 ha
GEOLOGY: Metamorphosed siltstone, shale, sandstone and chert are intruded by granite of the Okanagan Batholith. A 25 cm wide vein in a shear zone is mineralized with sericite, calcite, quartz and pyrite.

Kurtis A.R. 17501 REPORT YEAR: 1988, 33 Pages, 8 Map(s)

OPERATOR(S): **Parkwood Res.**
AUTHOR(S): Mark, D.G.
MINING DIV: Vernon
LOCATION: NTS 082E13E LAT. 49 59 00 LONG. 119 31 00
CLAIM(S): Bluehawk 1
EXPL. TARGET: Gold,Silver
WORK DONE: IPOL 7.1 km - 8 Map(s); 1:1000,1:4000
GEOLOGY: Host rocks on the property are an intrusive melanocratic diorite, and Permian Cache Creek metasediments and volcanics.

Gold assays of up to 4.5 ounces per ton are associated with pyrite in north and northwest striking shear hosted quartz veins. Structural geology is complex with several shear directions. Varying degrees of alteration are also present on the property. East-west shearing in southern portion may form part of a possible epithermal system.

MINFILE: 082ENW002

Lamb A.R. 17854 REPORT YEAR: 1988, 137 Pages, 3 Map(s)

OPERATOR(S): **Kerr Addison Mines**
AUTHOR(S): Pautler, J.
MINING DIV: Vernon
LOCATION: NTS 082E13E, 082L04E LAT. 50 01 20 LONG. 119 42 56
CLAIM(S): Lamb 1-8
WORK DONE: GEOL 3750.0 ha - 2 Map(s); 1:10 000,1:250
HMIN 35 sample(s);ME
LINE 25.0 km
MAGG 17.9 km
ROCK 193 sample(s);ME - 1 Map(s); 1:10 000
SOIL 999 sample(s);ME
TOPO 3750.0 ha
GEOLOGY: The claims are underlain by Paleozoic sedimentary rocks including limestone and limestone pebble conglomerate. These are hornfelsed by a Jurassic-Cretaceous granodiorite batholith, Tertiary syenite stock and Tertiary(?) diorite to ultramafic stock and dyke. Tertiary volcanics overlie the above. Small discontinuous quartz veins with anomalous bismuth occur peripheral to minor skarn and calc-silicate zones. The skarns are up to 2 metres wide and one may have a 200 metre strike length.

Spod A.R. 17576 REPORT YEAR: 1988, 21 Pages, 2 Map(s)

OPERATOR(S): **Stushnoff, J.**
AUTHOR(S): Stushnoff, J.
MINING DIV: Vernon
LOCATION: NTS 082E13E LAT. 49 57 25 LONG. 119 31 00
CLAIM(S): Spod
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: PROS 375.0 ha - 2 Map(s); 1:5000
GEOLOGY: A Jurassic Cache Creek sedimentary unit is intruded by a quartz rhyolite dyke. Pyrite and gold occur in a rhyolite dyke 1200 metres long and 3-5 metres wide.

Brae A.R. 16921 REPORT YEAR: 1988, 35 Pages, 2 Map(s)

OPERATOR(S): **Lenard, N.C.**
AUTHOR(S): Lenard, N.C.
MINING DIV: Osoyoos
LOCATION: NTS 082E13W LAT. 49 47 30 LONG. 119 48 30
CLAIM(S): Brae 1
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 500.0 ha - 2 Map(s); 1:400,1:5000
GEOLOGY: A pendant of Triassic Nicola metasediments in the north third of the claim is intruded by a pluton of Cretaceous Nelson granodiorite on the south. The contact is roughly east-westerly, north of Spring Lake. Scarce outcrops consist of hornfels and metamorphosed argillite, quartzite and limestone, variably pyritized.

Brae A.R. 17856 REPORT YEAR: 1988, 18 Pages, 1 Map(s)

OPERATOR(S): **Lenard, N.C.**
AUTHOR(S): Lenard, N.C.
MINING DIV: Osoyoos
LOCATION: NTS 082E13W LAT. 49 49 40 LONG. 119 51 39
CLAIM(S): Brae 2
EXPL. TARGET: Gold
WORK DONE: GEOL 500.0 ha - 1 Map(s); 1:5000
GEOLOGY: Nelson and Valhalla age granitic plutons underlie the western 70 per cent of the claim flanking a pendant of older Upper Triassic Nicola Group tuffaceous metaquartzites and tuffs on the east, which resembles the Hedley model. Altered diorites intrude the Nicola Group rocks in the northeastern corner with veinlets of pyritic, epidotic quartz-associated and spotty red garnet skarn.
RELATED A.R.: 16922

Brae 2 A.R. 16922 REPORT YEAR: 1988, 30 Pages, 1 Map(s)

OPERATOR(S): **Lenard, N.C.**
AUTHOR(S): Lenard, N.C.
MINING DIV: Osoyoos
LOCATION: NTS 082E13W LAT. 49 50 00 LONG. 119 52 00
CLAIM(S): Brae 2
EXPL. TARGET: Gold
WORK DONE: GEOL 500.0 ha - 1 Map(s); 1:5000
GEOLOGY: Cretaceous Nelson and Valhalla plutons lie in the south and northwest sectors, with a pendant of Triassic tuffaceous metaquartzites in the northeast sector of the claim. Pyrite is the only metallization noted in these bedrocks. Disseminated chalcopyrite occurs in one float skarn sample near the mid-south boundary. Sparse outcrops hide contacts and structural relations.

Brenda A.R. 16750 REPORT YEAR: 1987

OPERATOR(S): **Brenda Mines**
AUTHOR(S): Smith, K.M.
MINING DIV: Osoyoos
LOCATION: NTS 082E13W, 092H16E LAT. 49 52 25 LONG. 119 58 41
CLAIM(S): NB 1-5,Lots 5155-5156,Travis
WORK DONE: GEOL 200.0 ha
IPOL 27.7 km
LINE 9.6 km
MAGG 18.0 km
PETR 14 sample(s)
ROAD 7.5 km
ROTD 6883.0 m 66 hole(s)
SAMP 4500 sample(s);MO,CU,PB,FE,CA
SOIL 218 sample(s);CU,ZN,PB,AG,AS,MO,AU
GEOLOGY: The Brenda Mine lies within the Brenda stock, a composite quartz diorite of Jurassic age considered to be part of the much larger Pennask Batholith. Chalcopyrite, molybdenite and minor associated pyrite, occur mostly in hairline fractures with more substantial mineralization associated with quartz viens ranging in width from 3-10 millimetres.
RELATED A.R.: 00189, 01180, 01187, 01970, 05685, 05691, 06062, 09123, 09261, 15594

Flip A.R. 17700 REPORT YEAR: 1988, 14 Pages, 1 Map(s)

OPERATOR(S): **Chevron Min.**
AUTHOR(S): Ziebart, P.
MINING DIV: Vernon
LOCATION: NTS 082E13W, 082L04W LAT. 50 00 00 LONG. 119 46 19
CLAIM(S): Flip
WORK DONE: ROCK 20 sample(s);ME
SOIL 47 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: The property is underlain, in part, by ultramafic intrusions.
MINFILE: 082LSW005

Oka A.R. 16788 REPORT YEAR: 1987, 27 Pages, 1 Map(s)

OPERATOR(S): **Fairfield Min.**
AUTHOR(S): Bowen, B.
MINING DIV: Osoyoos
LOCATION: NTS 082E13W LAT. 49 48 18 LONG. 119 53 24
CLAIM(S): Oka 1-2,Oka 5
EXPL. TARGET: Gold,Silver,Copper,Zinc
WORK DONE: SOIL 162 sample(s);AU - 1 Map(s); 1:5000
GEOLOGY: The claims are underlain by Cretaceous granodiorite which intrudes Upper Triassic Nicola Group volcanics, clastic sediments and limestone. Carbonate horizons are variably altered to marble and skarn, which locally contain pods of massive sphalerite, chalcopyrite, pyrite, pyrrhotite and minor gold. Disseminated chalcopyrite, sphalerite and molybdenite have been found in the intrusive on the west end of the property. Previous exploration efforts concentrated on the massive sulphide zones and potential porphyry deposits. Current work has focused on gold.

RELATED A.R.: 15834, 16761
MINFILE: 082ENW026, 082ENW027, 082ENW030

Oka A.R. 16761 REPORT YEAR: 1987

OPERATOR(S): **Fairfield Min.**
AUTHOR(S): Bowen, B.
MINING DIV: Osoyoos
LOCATION: NTS 082E13W LAT. 49 48 28 LONG. 119 53 27
CLAIM(S): Oka 1-2,Oka 4-5,Oka 8-10,Iron Horse
WORK DONE: GEOL 5.0 ha
MAGG 18.0 km
RECL
SAMP 1815 sample(s);AU
SOIL 1637 sample(s);CU,PB,ZN,AG,AS,AU
STRI
TREN 2300.0 m 28 trench(es)
GEOLOGY: The claims are underlain by Cretaceous granodiorite intruding Upper Triassic Nicola Group volcanics, clastic sediments and limestone. Carbonate horizons are variably altered to marble and skarn, which locally contain pods of massive sphalerite, chalcopyrite, pyrite and pyrrhotite with scattered gold values.
RELATED A.R.: 00718, 01110, 08143, 09261, 15834

Peach A.R. 17959 REPORT YEAR: 1988, 45 Pages, 2 Map(s)

OPERATOR(S): **Ashworth, C.E.**
AUTHOR(S): Kidlark, R.G.
MINING DIV: Osoyoos
LOCATION: NTS 082E13W LAT. 49 46 00 LONG. 119 48 00
CLAIM(S): Big Bear,Deer-Fly,Coldham,View I-II
EXPL. TARGET: Silver,Copper,Lead,Zinc
WORK DONE: GEOL 1550.0 ha - 2 Map(s); 1:10 000
ROCK 44 sample(s);ME
SILT 8 sample(s);ME
GEOLOGY: The property is underlain by Nelson plutonic rocks consisting of granite to granodiorite with pendants and zenoliths of greenstone and gneiss. Sulphide mineralization consisting of pyrite, phrrhotite, chalcopyrite, galena, sphalerite occurs in shear zones and quartz veins.
RELATED A.R.: 16787
MINFILE: 082ENW020, 082ENW062

Peach A.R. 16787 REPORT YEAR: 1987, 35 Pages, 1 Map(s)

OPERATOR(S): **Ashworth, C.E.**
AUTHOR(S): Scroggins, E.
MINING DIV: Osoyoos
LOCATION: NTS 082E13W LAT. 49 46 21 LONG. 119 47 48
CLAIM(S): Big-Bear,Deer-Fly,Coldham
EXPL. TARGET: Silver,Lead,Zinc,Copper,Molybdenum/Molybdenite,Gold
WORK DONE: GEOL 250.0 ha - 1 Map(s); 1:10 000
ROCK 20 sample(s);ME
GEOLOGY:

The claims are underlain by Cretaceous-Jurassic Nelson Intrusions with small outcrops of metamorphosed Upper Triassic Nicola Group volcanics. Several showings exist including the "Reg" and "Lyla" which are 1-2 metre wide quartz veins that trend north.
MINFILE: 082ENW020, 082ENW062

Azza A.R. 18009 REPORT YEAR: 1988, 19 Pages, 1 Map(s)

OPERATOR(S): **Amulet Res.**
AUTHOR(S): Burgan, E.C.
MINING DIV: Vernon
LOCATION: NTS 082E15E LAT. 49 56 00 LONG. 118 34 00
CLAIM(S): Azza
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 85.0 ha - 1 Map(s); 1:2000
GEOLOGY: Shear zones in Nelson granites are hosts to gold-silver bearing quartz veins.
RELATED A.R.: 13528, 15217
MINFILE: 082ENE018, 082ENE022, 082ENE023, 082ENE060

Big P A.R. 17984 REPORT YEAR: 1988, 22 Pages, 1 Map(s)

OPERATOR(S): **Zelmac Mines**
AUTHOR(S): Higgins, A.G.
MINING DIV: Vernon
LOCATION: NTS 082E15E LAT. 49 53 00 LONG. 118 32 00
CLAIM(S): Big P1-P3,Tee 1-6

CONFIDENTIAL STATUS

Silver Lump A.R. 17526 REPORT YEAR: 1988, 71 Pages, 10 Map(s)

OPERATOR(S): **Grazina Res.**
AUTHOR(S): Borovic, I.
MINING DIV: Vernon
LOCATION: NTS 082E15E, 082E16W LAT. 49 53 54 LONG. 118 30 31
CLAIM(S): Silver Lump,Lightning Gold,Geo Gold
EXPL. TARGET: Silver,Lead,Zinc,Gold
WORK DONE: EMGR 26.0 km;VLF - 4 Map(s); 1:5000
GEOL 108.0 ha
LINE 26.0 km
MAGG 26.0 km - 1 Map(s); 1:5000
SOIL 500 sample(s);AU,AG,CU,PB,ZN - 5 Map(s); 1:5000
GEOLOGY: Sedimentary and volcanic rocks of the Permian Anarchist Group are intruded by granitic and granodioritic rocks of Cretaceous age. Mineralization composed of pyrite, sphalerite, chalcopyrite, galena with silver and gold occurs as disseminated grains, fracture fillings and massive lenses in quartz-carbonate gangue within fractured and faulted rocks. The regional structure is a roof pendant within Cretaceous granodiorites. Locally large shears control mineralization.

Goat A.R. 16970 REPORT YEAR: 1987, 112 Pages, 2 Map(s)

OPERATOR(S): **Chevron Can. Res.**
AUTHOR(S): LeBel, J.L. Morrison, R.
MINING DIV: Nelson
LOCATION: NTS 082F01E LAT. 49 07 00 LONG. 116 12 00
CLAIM(S): Goat 1-2
WORK DONE: EMGR 51.6 km;TRAN
MAGG 51.6 km - 2 Map(s); 1:2500,1:8000
GEOLOGY: The property straddles the contact between the lower and the middle Aldrige Formation which hosts the Sullivan orebody at Kimberley. Tourmaline and albite alteration occur on the property. A graben structure or growth fault is interpreted as trending east-west through the middle of the property.

Kid Star A.R. 17893 REPORT YEAR: 1988, 37 Pages, 1 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Jackisch, I.
MINING DIV: Nelson
LOCATION: NTS 082F01E LAT. 49 13 00 LONG. 116 15 00
CLAIM(S): Star 8-9
EXPL. TARGET: Lead,Zinc
WORK DONE: EMGR 17.3 km;UTEM - 1 Map(s); 1:10 000
GEOLOGY: The Star claims are underlain by steeply dipping east facing Middle Aldridge sediments. These sediments are dominantly medium to thin bedded wacke and quartzitic wackes and lessor quartz wacke. Gabbro sills and dykes are found on the property. It is bounded by steeply dipping major north trending faults with at least 4 other minor faults that are parallel to the major north trending faults.
RELATED A.R.: 15021, 16635, 16769

Sha A.R. 17044 REPORT YEAR: 1987, 112 Pages, 2 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Lajoie, J.J.
MINING DIV: Fort Steele
LOCATION: NTS 082F01E, 082F01W LAT. 49 03 25 LONG. 116 17 45
CLAIM(S): Sha 9-18,Sha 20-21,Sha 25,Sha 27,Sun 12
EXPL. TARGET: Lead,Zinc
WORK DONE: EMGR 60.3 km;HLEM - 2 Map(s); 1:20 000
GEOLOGY: The claims are underlain by moderately east dipping Proterozoic Middle Aldridge Formation sediments. These sediments are dominantly medium to thin bedded wackes and quartzitic wackes which are intruded by gabbro sills and dykes. The area is bounded on the east and west by 2 major north trending faults.
MINFILE: 082FSE076, 082FSE089

Sky A.R. 18153 REPORT YEAR: 1988, 18 Pages, 1 Map(s)

OPERATOR(S): **Wiklund, D.**
AUTHOR(S): Davies, H.I.
MINING DIV: Nelson
LOCATION: NTS 082F01E LAT. 49 09 00 LONG. 116 13 00
CLAIM(S): Sky
EXPL. TARGET: Lead,Zinc
WORK DONE: SOIL 190 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: A sequence of Middle Aldridge massive quartzites and interbedded shales strikes north to northwest and dips steeply. These country rocks are intruded by numerous diorite sills and stocks of various dimensions. The Old Baldy Fault traverses the property in a north-west direction. The fault is expressed by anomalous values of lead, zinc, lanthanum and strontium in soil.
RELATED A.R.: 16501
MINFILE: 082FSE068

Star A.R. 18121 REPORT YEAR: 1988, 16 Pages, 2 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Schultze, H.C.
MINING DIV: Nelson
LOCATION: NTS 082F01E LAT. 49 12 00 LONG. 116 14 00
CLAIM(S): Star 3-4,Star 12
EXPL. TARGET: Lead,Zinc
WORK DONE: SOIL 178 sample(s);ME - 2 Map(s); 1:10 000
GEOLOGY: The Star claims are underlain by steeply dipping, east facing, Middle Aldridge sediments. These sediments are dominantly medium to thin bedded wacke and quartzitic wackes and lessor quartz wacke. Gabbro sills and dykes are found on the property. The property is bounded by steeply dipping major north trending faults. At least four other minor faults that are parallel to the major north trending faults occur on the property.

Hall A.R. 18122 REPORT YEAR: 1988, 10 Pages, 2 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Anderson, D.W.
MINING DIV: Nelson
LOCATION: NTS 082F01W LAT. 49 17 00 LONG. 116 25 00
CLAIM(S): Hall 4
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE: SOIL 64 sample(s);ME - 2 Map(s); 1:10 000
GEOLOGY: The claims are underlain by Proterozoic age sedimentary rocks ranging from Aldridge Formation on the east through Dutch Creek Formation on the west. More particularly, Hall 4 is underlain by Middle and Upper Aldridge rocks which are quartzitic, medium bedded turbidites succeeded by a thin bedded argillaceous sequence. North trending faults are sub-paralleded by discontinuous quartz vein systems. No visible lead or zinc mineralization has been found to date.

Sha A.R. 18164 REPORT YEAR: 1988, 39 Pages, 1 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Price, M.A.
MINING DIV: Fort Steele
LOCATION: NTS 082F01W LAT. 49 06 00 LONG. 116 17 00
CLAIM(S): Sha 29-32
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE: EMGR 21.1 km;UTEM - 1 Map(s); 1:20 000
LINE 26.6 km
GEOLOGY: The claims are underlain by moderately east dipping Precambrian Middle Aldridge Formation sediments. These sediments are dominantly medium to thin bedded wackes and quartzitic wackes which are intruded by gabbro sills and dykes. The area is bound on the

east and west by 2 major north trending faults - the Iron Mountain Fault on the west and on the east by the Kidd Creek Fault. A number of minor northeast and northwest striking left lateral normal faults have been mapped on the property.

RELATED A.R.: 11210, 18163

Sha A.R. 17775 REPORT YEAR: 1988, 12 Pages, 3 Map(s)

OPERATOR(S): **Cominco**

AUTHOR(S): Hagen, A.S.

MINING DIV: Nelson

LOCATION: NTS 082F01W LAT. 49 11 00 LONG. 116 19 00

CLAIM(S): Sha 25

EXPL. TARGET: Zinc

WORK DONE: ROAD 3.0 km;RHAB

SOIL 65 sample(s);ME - 3 Map(s); 1:5000

GEOLOGY: The Sha claims are underlain by Precambrian Middle Aldridge Formation sedimentary rocks dipping moderately to the east. These rocks are dominantly medium to thin bedded wackes and quartzitic wackes, which are intruded by gabbro sills and dykes. The area is bound on the west by the Iron Mountain Fault and on the east by the Kidd Creek Fault. A number of minor northeast and northwest striking left lateral normal faults have been mapped on the property.

RELATED A.R.: 15109, 16181

Sha A.R. 18163 REPORT YEAR: 1988, 30 Pages, 1 Map(s)

OPERATOR(S): **Cominco**

AUTHOR(S): Price, M.A.

MINING DIV: Fort Steele

LOCATION: NTS 082F01W LAT. 49 06 00 LONG. 116 17 00

CLAIM(S): Sun 12,Sha 9-10

EXPL. TARGET: Lead,Zinc,Silver

WORK DONE: EMGR 9.3 km;UTEM - 1 Map(s); 1:20 000

GEOLOGY: The claims are underlain by moderately east dipping Precambrian Middle Aldridge Formation sediments. These sediments are dominantly medium to thin bedded wackes and quartzitic wackes which are intruded by gabbro sills and dykes. The area is bound on the east and west by 2 major north trending faults - the Iron Mountain fault on the west and on the east by the Kidd Creek fault. A number of minor northeast and northwest striking left lateral normal faults have been mapped.

RELATED A.R.: 11210

Sha/Star A.R. 16769 REPORT YEAR: 1987

OPERATOR(S): **Cominco**

AUTHOR(S): Hagen, A.S. Pighin, D.

MINING DIV: Nelson

LOCATION: NTS 082F01W, 082F01E LAT. 49 12 51 LONG. 116 15 00

CLAIM(S): Star,Star 1,Star 4-5,Star 7-8,Sha 19

WORK DONE: DIAD 396.0 m 1 hole(s);NQ

EMGR 93.9 km;HLEM

ROAD 0.5 km

SOIL 765 sample(s);ME

GEOLOGY: The claims are underlain by Proterozoic sediments of the Aldridge Formation. Younger Creston Formation rocks are in fault contact with the Aldridge Formation.

RELATED A.R.: 01069, 01625, 01642, 07481, 15021, 15021, 16635

Sun A.R. 18154 REPORT YEAR: 1988, 16 Pages, 1 Map(s)

OPERATOR(S): **Wiklund, D.**

AUTHOR(S): Davies, H.I.

MINING DIV: Nelson

LOCATION: NTS 082F01W LAT. 49 09 30 LONG. 116 18 30

CLAIM(S): Sun 5-7

EXPL. TARGET: Lead,Zinc

WORK DONE: SOIL 134 sample(s);ME - 1 Map(s); 1:2500

GEOLOGY: Middle Aldridge interbedded massive quartzites and shales dip 30 degrees east. These country rocks are intruded by diorite dykes, sills and minor mineralized quartz veins. The quartz veins generally strike east-west.

RELATED A.R.: 12239, 14623

Jon A.R. 17387 REPORT YEAR: 1988, 31 Pages

OPERATOR(S): **White Knight Res.**

AUTHOR(S): Whiting, F.B.

MINING DIV: Nelson

LOCATION: NTS 082F02E LAT. 49 02 22 LONG. 116 37 36

CLAIM(S): Sullivan Two

EXPL. TARGET: Lead,Zinc,Silver

WORK DONE: LINE 9.3 km

SOIL 422 sample(s);ME

GEOLOGY: The Proterozoic Middle Aldridge Formation contains an east dipping layer of carbonate, talc rock and quartzite carrying galena, sphalerite and silver. The mineralized bed is 6 metres thick.

RELATED A.R.: 13858, 16243

Laura A.R. 17398 REPORT YEAR: 1988, 13 Pages

OPERATOR(S): **Whiting, F.B.**

AUTHOR(S): Whiting, F.B.

MINING DIV: Nelson

LOCATION: NTS 082F02E LAT. 49 04 30 LONG. 116 40 00

CLAIM(S): Laura

EXPL. TARGET: Copper,Silver,Lead,Zinc

WORK DONE: GEOL 28.0 ha

GEOLOGY: West-dipping gneisses of the Precambrian Aldridge Formation intruded by (or partly metamorphosed to) granodiorite were reported in BCMM Annual Report of 1919 to host a mineralized zone carrying chalcopyrite, pyrite, minor lead, zinc and silver. Mapping of the area did not succeed in finding old diggings or any signs of sulphide mineralization. The showings probably occurs farther east.

MINFILE: 082FSE077

Bayonne A.R. 16846 REPORT YEAR: 1987, 77 Pages, 20 Map(s)

OPERATOR(S): **Terra Mines Lightning Min.**

AUTHOR(S): Hitchins, A.

MINING DIV: Nelson

LOCATION: NTS 082F02W LAT. 49 09 07 LONG. 116 56 49

CLAIM(S): Bayonne,Kentucky,Ohio,Virginia,New Jersey,Echo,Ontario,Mayflower,Last Chance,Summitt Belle, Michigan,St. Elmo,Montana,Bluebird,Bay 400

EXPL. TARGET: Gold

WORK DONE: GEOL 4000.0 ha - 6 Map(s); 1:10 000,1:4000,1:2000,1:1000

LINE 26.2 km - 1 Map(s); 1:2000

ROCK 120 sample(s):ME
SAMP [illegible]00 sample(s):ME
SILT [illegible]5 sample(s):ME
SOIL 9[illegible] sample(s):ME - 12 Map(s): 1:2000,1:4000
TREN 450.0 m 16 trench(es) - 1 Map(s): 1:500

GEOLOGY: The claims are underlain by Bayonne Batholith granodiorite. Mineralization occurs in steeply dipping, heavily oxidized shear zones up to 4 metres wide. Quartz veining in the shear zones varies from 5 centimetres to 3 metres in width. Gold is associated with limonitic quartz and heavy sulphide-bearing quartz.

MINFILE: 082FSE030, 082FSE031, 082FSE033, 082FSE034, 082FSE035

Hall A.R. 17951 REPORT YEAR: 1988, 21 Pages, 3 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Klein, J.
MINING DIV: Nelson
LOCATION: NTS 082F02W LAT. 49 17 00 LONG. 116 30 00
CLAIM(S): Hall,Hall 2
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE: IPOL 12.1 km - 3 Map(s): 1:7500,1:10 000
LINE 19.5 km

GEOLOGY: The Hall claims are underlain by Proterozoic age sedimentary rocks of the Kitchener and Dutch Creek Formations. The generally steeply-dipping, approximately north-striking package of sediments includes interbedded quartzites, argillites, and carbonates. Lead and zinc are indicated by soil sampling but are not obvious in the rocks. Pyrite is present locally as are minor amounts of tetrahedrite.

Wall A.R. 16909 REPORT YEAR: 1987, 20 Pages, 3 Map(s)

OPERATOR(S): **Nugget Mines**
AUTHOR(S): Allen, G.M.
MINING DIV: Nelson
LOCATION: NTS 082F02W LAT. 49 11 00 LONG. 116 59 00
CLAIM(S): Wall 9
EXPL. TARGET: Lead,Zinc,Silver,Gold
WORK DONE: MAGG 2.1 km - 1 Map(s): 1:5000
SOIL 102 sample(s);CU,AG,PB,ZN,AU - 2 Map(s): 1:10 000,1:5000

GEOLOGY: The claim area is underlain by biotite granodiorite of the Nelson Intrusions. The contact with sedimentary rocks of the Horsethief Creek series lies in the drift filled lower slopes of the Next Creek valley. One of the soil samples contained enriched levels of silver, zinc and lead.

RELATED A.R.: 10841, 13393

Aspen A.R. 17796 REPORT YEAR: 1988, 23 Pages

OPERATOR(S): **St. James Min.**
AUTHOR(S): Evans, D.S.
MINING DIV: Nelson
LOCATION: NTS 082F03E LAT. 49 10 00 LONG. 117 11 00
CLAIM(S): Aspen
EXPL. TARGET: Lead,Zinc,Silver,Cadmium,Gold
WORK DONE: SOIL 63 sample(s);PB,ZN,AG

GEOLOGY: Sphalerite and galena occur in quartz veins and silified argillites of the Early Paleozoic Laib Formation. Mineralization is exposed in two tunnels and a number of trenches. Vein attitude is unknown. The exposed vein is 0.5 metre wide.

MINFILE: 082FSW305

Cayote A.R. 16833 REPORT YEAR: 1987, 107 Pages

OPERATOR(S): **Lightning Min.** **Terra Mines**
AUTHOR(S): Ellerington, J.
MINING DIV: Nelson
LOCATION: NTS 082F03E LAT. 49 10 05 LONG. 117 07 11
CLAIM(S): Cayote,Lulu Fr.
EXPL. TARGET: Gold
WORK DONE: DIAD 1175.0 m 4 hole(s);NQ
SAMP 778 sample(s);CU,AG,ZN,PB,AU,AS

GEOLOGY: The claims are underlain by Lower Cambrian sediments. East-striking quartz veins contain pyrite, galena and sphalerite.

MINFILE: 082FSW038

Goldbelt A.R. 16834 REPORT YEAR: 1987, 23 Pages, 2 Map(s)

OPERATOR(S): **Lightning Min.**
AUTHOR(S): Ellerington, J.
MINING DIV: Nelson
LOCATION: NTS 082F03E LAT. 49 10 37 LONG. 117 05 18
CLAIM(S): Goldbelt 2,Gamble
EXPL. TARGET: Gold
WORK DONE: GEOL 270.0 ha - 1 Map(s): 1:7500
ROCK 18 sample(s);CU,AG,ZN,PB,AU,AS
SOIL 196 sample(s);CU,AG,ZN,PB,AU,AS - 1 Map(s): 1:7500

GEOLOGY: The claims are underlain by the Lower Cambrian Laib Formation, Reno Formation and the Quartzite Range Formation. These are predominantly composed of quartzites, argillites, phyllites and limestones. A large number of quartz zones were noted, particularly in the Nugget and Navada Members of the Quartzite Range Formation.

Goldbelt A.R. 16728 REPORT YEAR: 1987

OPERATOR(S): **Lightning Min.**
AUTHOR(S): Ellerington, J.
MINING DIV: Nelson
LOCATION: NTS 082F03E, 082F02W, 082F06W LAT. 49 10 32 LONG. 117 07 08
CLAIM(S): Rhomberg Fr.,Curlew,Dandy,Blackstone,Bluestone,Larkhall,Cassiar Fr.,Bluebird,Coyote,Nugget,Lulu Fr.,Goldbelt 2,Gamble,Skookum,New
WORK DONE: DIAD 2443.0 m 8 hole(s);NQ
EMGR 34.0 km;VLF
GEOL 4807.0 ha
LINE 58.2 km
MAGG 34.0 km
ROAD 0.4 km
ROCK 814 sample(s);ME
SAMP 1745 sample(s);ZN,PB,AU,AG,AS
SILT 25 sample(s);ME
SOIL 1932 sample(s);ME
TREN 450.0 m

GEOLOGY: The properties are situated in a succession of complexly folded Lower Cambrian or Pre-Cambrian sediments. Gold mineralization has primarily been found in quartz veins that cut massive quartzites of units referred to as the Navada and Nugget members of the Quartzite Range Formation.

K-G A.R. 18045 REPORT YEAR: 1988, 63 Pages

OPERATOR(S): **Landis, J.R.**
AUTHOR(S): Landis, J.R.
MINING DIV: Nelson
LOCATION: NTS 082F03E LAT. 49 11 00 LONG. 117 04 00
CLAIM(S): K-G,K-G-L
EXPL. TARGET: Gold,Silver,Lead
WORK DONE: EMGR 7.9 km;VLF
SPOT 1.6 km
GEOLOGY: The property is underlain by Paleozoic to Lower Cambrian rocks of the Laib Formation, Reno Formation, and the Quartzite Range Formation.
RELATED A.R.: 14795

Kootenay Belle A.R. 17667 REPORT YEAR: 1988, 58 Pages, 6 Map(s)

OPERATOR(S): **Goldsmith, L.B.**
AUTHOR(S): Kallock, P.
MINING DIV: Nelson
LOCATION: NTS 082F03E LAT. 49 08 39 LONG. 117 08 11
CLAIM(S): Argyle (L.10155),Wolf (L.3856)
EXPL. TARGET: Gold
WORK DONE: DIAD 1114.6 m 8 hole(s);NQ - 6 Map(s); 1:17 929,1:1000,1:500
ROAD 1.0 km
SAMP 73 sample(s);PB,ZN,AU
GEOLOGY: Tightly folded Lower Cambrian quartzites and argillites are cut by northeasterly trending southerly dipping faults which contain fillings of quartz, minor sulphides and gold. Diamond drilling from surface has intersected a fissure filling at two elevations with grades up to 27.4 grams per tonne over 0.57 metres true width.
RELATED A.R.: 08694, 09703
MINFILE: 082FSW

Mitka A.R. 18107 REPORT YEAR: 1988, 17 Pages

OPERATOR(S): **Anderson, D.W.**
AUTHOR(S): Anderson, D.W.
MINING DIV: Nelson
LOCATION: NTS 082F03E LAT. 49 10 00 LONG. 117 03 20
CLAIM(S): Mitka 1
EXPL. TARGET: Gold,Silver,Lead
WORK DONE: PROS 25.0 ha;VLF
GEOLOGY: The property is underlain by the Paleozoic, Lower Cambrian Laib Formation, Reno Formation and the Quartzite Range Formation rocks.

Nugget A.R. 16704 REPORT YEAR: 1987

OPERATOR(S): **Gunsteel Res.**
AUTHOR(S): Allen, G.M.
MINING DIV: Nelson
LOCATION: NTS 082F03E LAT. 49 09 50 LONG. 117 06 31
CLAIM(S): Lot 8341,Lot 8818,Lot 9914,Lot 10161
WORK DONE: GEOL 100.0 ha
GEOLOGY: The claims area is underlain by Late Proterozoic-Cambrian argillite, argillaceous quartzite and liemstone that have been folded into two tight northerly trending anticlines with an intervening syncline. Gold-quartz veins with minor sulphides occur in northeasterly trending faults where they intersect certain stratigraphic units (notably Upper Navada and Upper Nugget quartzite) near the crest of the western anticline and western limb of the eastern anticline.
RELATED A.R.: 15705

Porcupine A.R. 17510 REPORT YEAR: 1987, 62 Pages, 6 Map(s)

OPERATOR(S): **Obulus Res.**
AUTHOR(S): McClintock, J.A.
MINING DIV: Nelson
LOCATION: NTS 082F03E, 082F06E LAT. 49 15 00 LONG. 117 11 30
CLAIM(S): Porky,Victor,Emerald,Porcupine,Sunrise,Nevada,Gorgina-Sandaulphin,Imperial
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: EMGR 25.0 km;VLF - 1 Map(s); 1:2500
LINE 35.0 km
MAGG 25.0 km - 1 Map(s); 1:2500
ROCK 6 sample(s);PB,ZN,AG,AU
SOIL 530 sample(s);PB,ZN,AG,AU - 4 Map(s); 1:2500
GEOLOGY: The claim group is underlain by Mesozoic sedimentary, volcanic and intrusive rocks of the Omineca Crystalline Belt. Mineralization consists of pyrite, galena, and sphalerite with traces of pyrrhotite in a gangue of quartz and silicified wallrock. The veins occupy northeasterly trending, steeply dipping shear zones in argillite.
MINFILE: 082FSW063, 082FSW064

Reno A.R. 16836 REPORT YEAR: 1987, 13 Pages, 2 Map(s)

OPERATOR(S): **Lightning Min.**
AUTHOR(S): Ellerington, J.
MINING DIV: Nelson
LOCATION: NTS 082F03E LAT. 49 11 39 LONG. 117 08 17
CLAIM(S): Reno 1
EXPL. TARGET: Gold,Zinc,Copper
WORK DONE: GEOL 28.0 ha - 1 Map(s); 1:2000
LINE 4.1 km
ROCK 2 sample(s);ME
SOIL 79 sample(s);ME - 1 Map(s); 1:2000
GEOLOGY: The claim is underlain by Cretaceous-Jurassic Nelson Plutonic Rocks, Lower Ordovician Active Formation argillite and Cambrian quartzite, phyllite and limestone.
RELATED A.R.: 09794, 11249, 13017
MINFILE: 082FSW032

Rhomberg A.R. 16849 REPORT YEAR: 1987, 209 Pages

OPERATOR(S): **Terra Mines** **Lightning Min.**
AUTHOR(S): Ellerington, J.
MINING DIV: Nelson
LOCATION: NTS 082F03E LAT. 49 10 27 LONG. 117 07 04
CLAIM(S): Rhomberg Fr.
EXPL. TARGET: Gold
WORK DONE: DIAD 1268.0 m 4 hole(s);NQ
SAMP 967 sample(s);ME
GEOLOGY: Diamond drilling tested a quartz vein system at depth where the vein would cut the Navada and Nugget Members of the Quartzite Range Formation along the axis of a major anticline running northwest

through the claims.
MINFILE: 082FSW037

Salmo Goldbelt A.R. 16828 REPORT YEAR: 1987, 81 Pages, 14 Map(s)

OPERATOR(S): **Terra Mines**
AUTHOR(S): Ellerington, J.
MINING DIV: Nelson
LOCATION: NTS 082F03E LAT. 49 10 22 LONG. 117 07 16
CLAIM(S): Manhatten Fr.,Dandy,Curlew,Snowdrift,Black Stone,Rhomberg Fr.,Golden Fawn,Bluestone,Larkhall, Cassiar Fr.,Bluebird,Shamrock,Lillian Fr.,Joint,Dominion
EXPL. TARGET: Gold
WORK DONE: EMGR 28.0 km;VLF - 5 Map(s); 1:2381,1:116
GEOL 400.0 ha - 5 Map(s); 1:5000,1:945,1:227
LINE 28.0 km
MAGG 28.0 km - 1 Map(s); 1:2381
ROCK 749 sample(s);ME
SOIL 674 sample(s);ME - 3 Map(s); 1:2381
GEOLOGY: The grid area is underlain by Lower Cambrian Laib and Reno Formation sediments. East striking gold-pyrite-sphalerite quartz veins occur.
MINFILE: 082FSW037, 082FSW038, 082FSW040, 082FSW042, 082FSW044, 082FSW045, 082FSW056, 082FSW259

Shawn A.R. 17233 REPORT YEAR: 1987, 117 Pages, 13 Map(s)

OPERATOR(S): **Northwind Ventures**
AUTHOR(S): Adams, D.H.
MINING DIV: Nelson
LOCATION: NTS 082F03E, 082F06E LAT. 49 14 43 LONG. 117 03 10
CLAIM(S): Shawn C1-C4,Shawn C7-C8,Hurbar,Cindy 1
EXPL. TARGET: Gold
WORK DONE: DIAD 504.0 m 5 hole(s);BQ - 6 Map(s); 1:250
EMGR 23.0 km;VLF - 1 Map(s); 1:2500
GEOL 400.0 ha - 1 Map(s); 1:2500
MAGG 23.0 km - 1 Map(s); 1:2500
ROAD 0.7 km
ROCK 70 sample(s);AU,AG,PB,ZN
SAMP 236 sample(s);AU,AG,PB,ZN
SOIL 930 sample(s);AU,AG,PB,ZN - 4 Map(s); 1:2500
GEOLOGY: Lower Cambrian limestones and quartzites of the Quartzite Range Formation, Reno Formation, Laib Formation and Nelway Formation are cut by granodiorite sills and plugs. Swarms of northeast trending quartz veins mineralized with pyrite returned intersections of 0.9 metres of 12.7 grams per tonne gold and 1.0 metre of 33.9 grams per tonne gold.
MINFILE: 082FSW

T.J. A.R. 18046 REPORT YEAR: 1988, 16 Pages

OPERATOR(S): **Landis, J.R.**
AUTHOR(S): Landis, J.R.
MINING DIV: Nelson
LOCATION: NTS 082F03E LAT. 49 10 30 LONG. 117 03 30
CLAIM(S): T.J.
EXPL. TARGET: Gold,Silver,Lead
WORK DONE: EMGR 0.6 km;VLF
GEOLOGY: The property is underlain by rocks of the Paleozoic to Lower Cambrian Laib Formation, Reno Formation and the Quartzite Range Formation.
RELATED A.R.: 14795, 18045

Whitecloud A.R. 16835 REPORT YEAR: 1987, 8 Pages

OPERATOR(S): **Lightning Min.**
AUTHOR(S): Ellerington, J.
MINING DIV: Nelson
LOCATION: NTS 082F03E LAT. 49 09 49 LONG. 117 09 29
CLAIM(S): Whitecloud
WORK DONE: GEOL 75.0 ha
GEOLOGY: The claim is underlain by limestone of the Lower Ordovician Active Formation and granite of the Cretaceous-Jurassic Nelson Batholith.

Yellowstone A.R. 18029 REPORT YEAR: 1988, 45 Pages, 1 Map(s)

OPERATOR(S): **Arakis Min.**
AUTHOR(S): Coombes, S.F.
MINING DIV: Nelson
LOCATION: NTS 082F03E LAT. 49 08 30 LONG. 117 08 00
CLAIM(S): Yellowstone
EXPL. TARGET: Gold
WORK DONE: SAMP 33 sample(s);AU,AG
UNDD 176.0 m 9 hole(s);AQ ,BQ - 1 Map(s); 1:200
UNDV 6.0 m
GEOLOGY: The workings expose quartzite and argillaceous quartzites belonging to the Upper Nuggeget and Lower Nevada Members of the Precambrian Quartzite Range Formation. Gold and silver occur associated with sulphides in the vein.
RELATED A.R.: 16861
MINFILE: 082FSW052

Yellowstone A.R. 16861 REPORT YEAR: 1988, 63 Pages, 2 Map(s)

OPERATOR(S): **Arakis Min.**
AUTHOR(S): Helles, D.M.
MINING DIV: Nelson
LOCATION: NTS 082F03E LAT. 49 08 29 LONG. 117 07 19
CLAIM(S): Yellowstone,Dixie
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 257.0 m 10 hole(s);BQ ,AQ
GEOL 0.1 ha - 1 Map(s); 1:200
PETR 6 sample(s)
RECL 0.1 ha
ROAD 7.0 km
ROCK 43 sample(s);AU,AG - 1 Map(s); 1:200
SAMP 155 sample(s);AU,AG
USUR 300.0 m
GEOLOGY: The Yellowstone workings expose massive white to argillaceous quartzites assigned to the Precambrian Quartzite Range Formation. These sediments are folded and have been obliquely cut by an east-trending, steep, strike-slip fault which locally hosts auriferous quartz mineralization in distinct shoots.
MINFILE: 082FSW052

Gus A.R. 16901 REPORT YEAR: 1987, 104 Pages, 12 Map(s)

OPERATOR(S): **Kidd Creek Mines**
AUTHOR(S): Bakker, E.
MINING DIV: Nelson
LOCATION: NTS 082F03W LAT. 49 07 24 LONG. 117 21 29
CLAIM(S): Gus 1,Gus 4-5,Gus 9,Gus 12-13
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 506.0 ha - 3 Map(s); 1:5000,1:1000
SAMP 435 sample(s);AU,AG
SOIL 179 sample(s);AU,AG - 2 Map(s); 1:5000
TREN 1730.0 m 31 trench(es) - 7 Map(s); 1:200
GEOLOGY: Mafic volcaniclastics and flows of basaltic composition belonging to the Elise Formation of the Jurassic Rossland Group are cut by narrow quartz veins which contain pyrite, trace chalcopyrite, galena and sphalerite. Weak to moderate gold values are associated with quartz veining. Pervasive carbonatization (ferroan dolomite) is evident in broad zones on Gus 7 and 12.
MINFILE: 082FSW

Leona A.R. 18126 REPORT YEAR: 1988, 86 Pages

OPERATOR(S): **Landis, J.R.**
AUTHOR(S): Landis, J.R.
MINING DIV: Nelson
LOCATION: NTS 082F03W LAT. 49 13 20 LONG. 117 24 30
CLAIM(S): Leona,Anne,Victor,Brandy 1-2
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE: EMGR 10.8 km;VLF
SPOT 2.3 km
GEOLOGY: The property is mainly underlain by Lower Jurassic Elise Formation volcanics and Lower Cretaceous Nelson Plutonic rocks.

Lucky Boy A.R. 17710 REPORT YEAR: 1988, 37 Pages, 1 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Anderson, D.W.
MINING DIV: Nelson
LOCATION: NTS 082F03W LAT. 49 08 19 LONG. 117 12 23
CLAIM(S): Lucky Boy,Mayflower
EXPL. TARGET: Zinc,Lead
WORK DONE: DIAD 968.8 m 12 hole(s);NQ - 1 Map(s); 1:5000
ROAD 0.5 km
TREN 5 trench(es)
GEOLOGY: The property occurs in the Kootenay Arc lead-zinc belt. The host rocks are Cambrian to Ordovician sediments including mixed argillaceous rocks, carbonates and argillites. There are Mesozoic and Tertiary granitic intrusives in the general area. Where the Reeves Formation limestone member of this succession is dolomitized, sulphide mineralization is found coonsisting of galena, sphalerite and pyrite. The sediments have been intensely deformed, with three stages of folding identified.

Swift A.R. 17296 REPORT YEAR: 1988, 216 Pages, 11 Map(s)

OPERATOR(S): **Falconbridge**
AUTHOR(S): Clemmer, S.G.
MINING DIV: Nelson
LOCATION: NTS 082F03W LAT. 49 07 29 LONG. 117 21 14
CLAIM(S): Swift 2-3,Gus 12
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: DIAD 891.0 m 8 hole(s);NQ - 11 Map(s); 1:5000,1:1000,1:200
SAMP 608 sample(s);ME
GEOLOGY: The property is underlain by mafic volcanics of the Jurassic Elise Formation, part of the Rossland Group, intruded by Cretaceous-Jurassic Nelson Plutonic Rocks and younger felsic and syenite dykes. Mafic pyroclastics are locally carbonatized and silicified. Minor fracture copper-lead-zinc-silver-gold quartz-carbonate veins occur in altered rocks. Silicified zones up to 30 by 500 metres contain anomalous values in gold.
MINFILE: 082FSW

Air A.R. 17214 REPORT YEAR: 1988, 16 Pages, 5 Map(s)

OPERATOR(S): **Inland Au-Ag Res.**
AUTHOR(S): Bragg, D.K.
MINING DIV: Trail Creek
LOCATION: NTS 082F04E, 082F04W LAT. 49 03 30 LONG. 117 46 00
CLAIM(S): Tigre,Nobus,Pine
EXPL. TARGET: Lead,Zinc,Copper,Silver,Gold
WORK DONE: MAGG 11.7 km - 5 Map(s); 1:500
GEOLOGY: Mineralization occurs in fault structures within the Pennsylvanian Mount Roberts Formation, the Jurassic Rossland Group and the Cretaceous-Jurassic Nelson Plutonic Rocks.
RELATED A.R.: 13357, 14345

Cam A.R. 17688 REPORT YEAR: 1988, 11 Pages, 2 Map(s)

OPERATOR(S): **Inland Au-Ag Res.**
AUTHOR(S): Bragg, D.K.
MINING DIV: Trail Creek
LOCATION: NTS 082F04E LAT. 49 03 30 LONG. 117 44 00
CLAIM(S): Cam 1-2
EXPL. TARGET: Lead,Zinc,Gold,Silver,Copper
WORK DONE: GEOL 25.0 ha - 1 Map(s); 1:500
MAGG 3.0 km - 1 Map(s); 1:500
GEOLOGY: The Cam claim covers a possible southern extension of a showing to the north where mineralization occurs along fault structures within the Pennssylvanian Mount Roberts Formation, the Lower Jurassic Rossland Formation, and the Lower Cretaceous Nelson Plutonic Complex.
RELATED A.R.: 13938

Gold Dust (Decoy) A.R. 17187 REPORT YEAR: 1988, 100 Pages

OPERATOR(S): **Tobex Res.**
AUTHOR(S): Livgard, E.
MINING DIV: Trail Creek
LOCATION: NTS 082F04E LAT. 49 04 18 LONG. 117 41 52
CLAIM(S): Gold Dust 1-4,Decoy 2
EXPL. TARGET: Gold,Copper
WORK DONE: ROAD 2.2 km
SOIL 1617 sample(s);PB,ZN,CU,AG,AU,AS,SB
GEOLOGY: The claims are underlain by Jurassic Rossland Group volcanics. Mineralization consists of veins of massive pyrrhotite and chalcopyrite with minor pyrite and arsenopyrite, often with good gold

values. Fracture zones of unknown extent contains the same mineralization occurring as disseminations.

Rossland Bear A.R. 17330 REPORT YEAR: 1988, 154 Pages, 4 Map(s)

OPERATOR(S): **Courageous Ex.**
AUTHOR(S): Arndt, R.E.
MINING DIV: Nelson
LOCATION: NTS 082F04E LAT. 49 08 11 LONG. 117 36 07
CLAIM(S): Champ,Champ 3-7,Dale,Marl,Euge,Fir,Laq,Vil,Grif,Art,Dave
EXPL. TARGET: Gold
WORK DONE: ROCK 83 sample(s);ME - 3 Map(s); 1:63 360,1:25 000
SILT 29 sample(s);ME
SOIL 634 sample(s);ME - 1 Map(s); 1:25 000
GEOLOGY: The claims are underlain by Jurassic volcanics and sediments of the Elise Formation (Rossland Group) and various phases of Cretaceous-Jurassic Nelson Plutonic Rocks. All rocks are folded in a northeast trend. Mineralized fractures and shears occur in greenstones but there is no documented evidence of precious metal values.

Charleston Group A.R. 17499 REPORT YEAR: 1988, 20 Pages, 3 Map(s)

OPERATOR(S): **Bragg, D.K.**
AUTHOR(S): Bragg, D.K.
MINING DIV: Trail Creek
LOCATION: NTS 082F04W LAT. 49 04 30 LONG. 117 47 00
CLAIM(S): Arr 11-12,Add 2,Add 3 Fr.
EXPL. TARGET: Copper,Gold,Silver,Lead,Zinc
WORK DONE: MAGG 11.4 km - 3 Map(s); 1:500
GEOLOGY: The area is underlain by sedimentary and volcanic rocks which have been intruded and metamorphosed by igneous rocks. The oldest rocks in the area are slates, limestones, quartzites, andesites and banded tuffs of the Pennsylvanian Mount Roberts Formation. These are overlain by Lower Jurassic Rossland Group andesitic to basaltic flows, augite porphyry and tuffs. These in turn have been intruded by a series of intrusive rocks.
RELATED A.R.: 16107

Jero A.R. 17380 REPORT YEAR: 1988, 43 Pages, 2 Map(s)

OPERATOR(S): **Gunsteel Res.**
AUTHOR(S): Brownlee, D.J.
MINING DIV: Trail Creek
LOCATION: NTS 082F04W LAT. 49 02 19 LONG. 117 50 08
CLAIM(S): Jero 5-6,Jero 10-11
WORK DONE: GEOL 1000.0 ha - 1 Map(s); 1:5000
ROCK 36 sample(s);CU,AG,ZN,PB,AU,AS
SOIL 289 sample(s);CU,AG,ZN,PB,AU - 1 Map(s); 1:5000
TREN 154.0 m 11 trench(es)
GEOLOGY: The claim area is underlain by sedimentary, volcanic and sub-volcanic rocks of the Jurassic Rossland Group which are intruded by dykes of quartz-feldspar porphyry and hornblende syenodiorite. Except for the presence of disseminated pyrite and pyrrhotite, no mineral occurrences are known on the claims. However, outcrops are sparse and work to date has revealed the presence of widespread zinc, lead and arsenic and scattered gold anomalies in soils.
RELATED A.R.: 15414, 15482
MINFILE: 082FSW

Ross A.R. 17346 REPORT YEAR: 1988, 88 Pages, 7 Map(s)

OPERATOR(S): **Sidon Int. Res.**
AUTHOR(S): Sampson, C.J.
MINING DIV: Trail Creek
LOCATION: NTS 082F04W LAT. 49 02 00 LONG. 117 53 00
CLAIM(S): Ross 1-4
EXPL. TARGET: Platinum,Gold,Silver,Nickel,Copper,Lead,Zinc
WORK DONE: EMGR 25.0 km; VLF - 3 Map(s); 1:2500
LINE 127.3 km
ROCK 9 sample(s);AU,AG,AS,SB,CU,PB,ZN
SOIL 1948 sample(s);AU,AG,AS,SB,CU,PB,ZN - 4 Map(s); 1:5000
GEOLOGY: The area is underlain by two major formations: the lowest consisting of siltstone, sandstone, conglomerate and minor amounts of limestone of the carboniferous Mt. Roberts Formation, which are overlain predominantly by greenstones with some interbedded siltstone of the Lower Jurassic Rossland Formation. The Rossland rocks are the main hosts for many of the gold mines in the Rossland district. The country rocks have been variably metamorphosed and intruded by the Rossland monzonite,the Rainy Day Pluton, and various other rocks of syenite, monzonite, and serpentinite composition.
MINFILE: 082FSW130

Rossland A.R. 16751 REPORT YEAR: 1987

OPERATOR(S): **Antelope Res.**
AUTHOR(S): Yorke-Hardy, R. Boniwell, J.B. Fowler, F.H.
MINING DIV: Trail Creek
LOCATION: NTS 082F04W LAT. 49 03 39 LONG. 117 47 38
CLAIM(S): Celtic Queen,Robert E. Lee,Antelope 7 Fr.,Maid of Erin,Bluebird,Homestake,Red Eagle, Olla Podrida,Alcome Fr.,Hattie Brown,Monday,Hattie,Tuesday,Antelope 3-9 Fr.
WORK DONE: DIAD 1483.2 m 11 hole(s);NQ
EMGR 32.8 km;VLF
GEOL 253.0 ha
IPOL 17.6 km
LINE 38.5 km
MAGG 35.6 km
SAMP 21 sample(s);ME
GEOLOGY: Rossland monzonite intrudes northeast trending andesitic volcanics of the Jurassic Rossland Group. East trending shear zones within the andesitic volcanics contain disseminations and narrow stringers of pyrrhotite, pyrite, sphalerite, galena, arsenopyrite, tetrahedrite, chalcopyrite and boulangerite which carry gold and silver values.

Santa Rosa A.R. 17681 REPORT YEAR: 1988, 64 Pages, 8 Map(s)

OPERATOR(S): **Triple R Res.**
AUTHOR(S): Smith, G.F. Keyser, H.
MINING DIV: Trail Creek
LOCATION: NTS 082F04W LAT. 49 01 00 LONG. 117 57 00
CLAIM(S): Santa Rosa 1-4,Rosa-Vermont 2
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: ROCK 27 sample(s);AU,AG,AS,SB,CU,PB,ZN - 1 Map(s); 1:10 000
SOIL 1455 sample(s);AU,AG,AS,SB,CU,PB,ZN - 7 Map(s); 1:10 000
GEOLOGY: The Santa Rosa property is underlain by volcanics and sediments of the Jurassic Rossland Group, which are intruded by the Eocene Coryell syenite batholith, plugs and dykes. No mineralization has

been identified to date, but gold, silver, arsenic, copper, lead and zinc anomalies coincide with country rock - intrusive contact zones.

Strawberry A.R. 17372 **REPORT YEAR:** 1988, 17 Pages

OPERATOR(S): **Ganderton, R.**
AUTHOR(S): Bonde, K.V.
MINING DIV: Trail Creek
LOCATION: NTS 082F04W LAT. 49 12 00 LONG. 117 53 00
CLAIM(S): Strawberry
EXPL. TARGET: Gold
WORK DONE: EMGR 2.4 km; VLF
LINE 5.8 km
PROS 20.0 ha
GEOLOGY:

Several VLF-EM anomalies are probably due to geological contacts and possibly sulphide mineralization.

Union Jack-Poor Property A.R. 17731 **REPORT YEAR:** 1988, 17 Pages, 4 Map(s)

OPERATOR(S): **Inland Au-Ag Res.**
AUTHOR(S): Bragg, D.K.
MINING DIV: Trail Creek
LOCATION: NTS 082F04W LAT. 49 04 05 LONG. 117 50 04
CLAIM(S): Union Jack (L.1288),Poor Property (L.1273)
EXPL. TARGET: Copper,Gold,Silver,Lead,Zinc
WORK DONE: GEOL 14.0 ha - 2 Map(s); 1:500
MAGG 5.1 km - 2 Map(s); 1:500
GEOLOGY: Mineralization occurs along fault structures within the Pennsylvanian Mount Roberts Formation, the Jurassic Rossland Group and the Cretaceous-Jurassic Nelson Plutonic Rocks.

Vermont A.R. 17718 **REPORT YEAR:** 1988, 69 Pages, 15 Map(s)

OPERATOR(S): **First Manhattan Res.**
AUTHOR(S): Burton, A.
MINING DIV: Trail Creek
LOCATION: NTS 082F04W LAT. 49 00 27 LONG. 117 53 33
CLAIM(S): Vermont 1-3
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: EMGR 31.3 km;VLF - 6 Map(s); 1:5000
LINE 40.0 km
MAGG 35.0 km - 1 Map(s); 1:5000
SOIL 1576 sample(s);ME - 7 Map(s); 1:5000
TOPO 375.0 ha - 1 Map(s); 1:5000
GEOLOGY: Lower Jurassic Elise Formation and Cretaceous Sophie Mountain Formation rocks are intruded by Tertiary Coryell Intrusions and minor porphyries. Gold-bearing veins cut Sophie Mountain Formation conglomerates and Elise Formation rocks.

Dumas A.R. 16800 **REPORT YEAR:** 1987, 36 Pages, 2 Map(s)

OPERATOR(S): **Triune Res.**
AUTHOR(S): Seyward, M. White, G.E.
MINING DIV: Nelson
LOCATION: NTS 082F06E LAT. 49 21 02 LONG. 117 08 25
CLAIM(S): Dumas 1-5,Dumas (L. 5727)
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: IPOL 10.6 km - 2 Map(s); 1:3000
GEOLOGY: The claims are underlain by dark coloured argillites and schists of the Lower Jurassic-Triassic Ymir Group, quartzite, lamprophyre dykes and Cretaceous-Jurassic Nelson Intrusions. Mineralization consists of pyrite, galena, sphalerite, tetrahedrite and gold.
MINFILE: 082FSW080

Golden Age A.R. 17464 **REPORT YEAR:** 1988, 37 Pages, 3 Map(s)

OPERATOR(S): **Lepinski, J.**
AUTHOR(S): Gower, S.C.
MINING DIV: Nelson
LOCATION: NTS 082F06E LAT. 49 24 00 LONG. 117 13 00
CLAIM(S): Golden Age 2
EXPL. TARGET: Gold,Silver,Multielement
WORK DONE: GEOL 8.3 ha - 1 Map(s); 1:200
ROCK 30 sample(s);ME - 2 Map(s); 1:200
GEOLOGY: Shear zones which cut Rossland volcanics are mineralized with gold and silver. Numerous gold in soil anomalies require follow-up. An underground working follows a major mineralized shear zone.
RELATED A.R.: 03303, 03304, 06379, 13682
MINFILE: 082FSW185

Oldtimer A.R. 17160 **REPORT YEAR:** 1987, 87 Pages, 5 Map(s)

OPERATOR(S): **Golden Glory Res.**
AUTHOR(S): Von Einsiedel, C.A.
MINING DIV: Nelson
LOCATION: NTS 082F06E LAT. 49 21 34 LONG. 117 08 10
CLAIM(S): Oldtimer
EXPL. TARGET: Gold
WORK DONE: EMGR 0.3 km;VLF
GEOL 200.0 ha - 1 Map(s); 1:2500
ROAD 0.5 km
ROCK 50 sample(s);ME
SOIL 485 sample(s);ME - 4 Map(s); 1:1000
TREN 175.0 m 12 trench(es)
GEOLOGY: The property is located in the northern part of the Ymir Gold Camp and covers a complex contact zone between granodiorite of the Cretaceous-Jurassic Nelson Plutonic Rocks and Lower Jurassic-Triassic Ymir Group metasediments. Gold mineralization occurs in a north trending fault zone close to the intrusive contact.
MINFILE: 082FSW081

Pendant A.R. 16464 **REPORT YEAR:** 1987, 61 Pages, 4 Map(s)

OPERATOR(S): **Qualis Res.**
AUTHOR(S): Von Einsiedel, C.A.
MINING DIV: Nelson
LOCATION: NTS 082F06E LAT. 49 21 00 LONG. 117 05 48
CLAIM(S): Pendant 1-3
EXPL. TARGET: Gold,Lead,Silver
WORK DONE: GEOL 400.0 ha - 1 Map(s); 1:2500
ROCK 65 sample(s);ME
SOIL 365 sample(s);ME - 3 Map(s); 1:2500
UNDV 100.0 m;RHAB
GEOLOGY: The property is underlain by plutonic rocks of the Jurassic-Cretaceous Nelson Intrusions and roof pendants of the Triassic-Lower Jurassic Ymir Group metasedimentary rocks. Mineralization containing

high gold values is associated with east and northeast striking pyritic quartz veins.
MINFILE: 082FSW078, 082FSW196

Ymir-Belle A.R. 17985 REPORT YEAR: 1988, 21 Pages

OPERATOR(S): **Bourdon, R. Pittman, C.**
AUTHOR(S): Allen, D.G.
MINING DIV: Nelson
LOCATION: NTS 082F06E LAT. 49 20 00 LONG. 117 07 00
CLAIM(S): Ymir,Belle
EXPL. TARGET: Gold
WORK DONE: EMGR 0.7 km;VLF
LINE 0.7 km
PROS 325.0 ha
ROCK 7 sample(s);AU,ME
SOIL 27 sample(s);AU,ME
GEOLOGY: The property is underlain by granodiorite of the Nelson Intrusions. Quartz veins occur locally in shear zones and as fissure fillings which trend east to northeast. Mineralization consists of pyrite, galena and sphalerite with associated gold values.
MINFILE: 082FSW194

Athabasca A.R. 17184 REPORT YEAR: 1988, 62 Pages, 3 Map(s)

OPERATOR(S): **Cassidy Res.**
AUTHOR(S): Addie, G. Leighton, D.G.
MINING DIV: Nelson
LOCATION: NTS 082F06W LAT. 49 27 30 LONG. 117 18 30
CLAIM(S): Good Enough,Good Hope,Ruby Fr.,Algoma,Triangle Fr.,Athabasca,Alberta,Manitoba,Hanky Panky Fr., Ant Fr.,Old Hat Fr.
EXPL. TARGET: Gold
WORK DONE: EMGR 21.0 km; VLF - 1 Map(s); 1:3000
GEOL 100.0 ha - 1 Map(s); 1:3000
LINE 10.5 km
MAGG 10.5 km
ROAD 2.0 km
ROCK 59 sample(s);ME
SOIL 534 sample(s);AU,HG - 1 Map(s); 1:3000
GEOLOGY: An auriferous quartz vein cuts across a 100 metre wide, east-west trending graben. From north to south the lithologies are: the Nelson Batholith, Elise Formation volcanics of the Rossland Group and Silver King porphyry. Pyrite, minor galena and sphalerite occur in the quartz vein, which is about 0.5 metres wide, strikes 040 degrees and dips 30-50 degrees northwest. Small east-west trending quartz stringers, which cut and displace the vein, are also auriferous.
MINFILE: 082FSW168

Bear A.R. 16847 REPORT YEAR: 1987, 11 Pages, 2 Map(s)

OPERATOR(S): **Terra Mines**
AUTHOR(S): Hannigan, P.
MINING DIV: Nelson
LOCATION: NTS 082F06W LAT. 49 22 41 LONG. 117 17 23
CLAIM(S): Bear,Bear 1 Fr.
EXPL. TARGET: Gold
WORK DONE: GEOL 4.0 ha - 2 Map(s); 1:5000,1:178
GEOLOGY: The claims are underlain by Jurassic Rossland Group augite porphyry. Fracture related quartz veins occur.
MINFILE: 082FSW182

Connor A.R. 17292 REPORT YEAR: 1988, 58 Pages, 2 Map(s)

OPERATOR(S): **Cream Silver Mines**
AUTHOR(S): Akhurst, W.K.
MINING DIV: Nelson
LOCATION: NTS 082F06W LAT. 49 25 00 LONG. 117 29 00
CLAIM(S): Connor,Hungary Man (L.4083),Anne-Marie 4
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 0.8 km;VLF
LINE 20.0 km
MAGG 20.0 km - 1 Map(s); 1:1250
RECL 0.1 ha
ROAD 3.9 km
ROCK 12 sample(s);ME
SOIL 217 sample(s);ME - 1 Map(s); 1:1250
TREN 125.0 m 5 trench(es)
GEOLOGY: Lower Jurassic andesites of the Elise Formation are surrounded by diorites/granodiorites of the Cretaceous-Jurassic Nelson plutonic rocks. Alteration in the andesites appears to be minimal. Massive sulphide mineralization was seen in float boulders to the west of Connor Creek and in outcrops on the western bank of Connor Creek on the Hungary-Man crown grant.
RELATED A.R.: 07901, 08881, 09031, 12082
MINFILE: 082FSW235

Crow A.R. 17505 REPORT YEAR: 1988, 14 Pages

OPERATOR(S): **Addie, L.**
AUTHOR(S): Addie, L.
MINING DIV: Nelson
LOCATION: NTS 082F06W LAT. 49 25 30 LONG. 117 19 24
CLAIM(S): Crow
EXPL. TARGET: Gold
WORK DONE: PROS 25.0 ha
SOIL 15 sample(s);AU
GEOLOGY: The claim is underlain mainly by Rossland augite porphyry flow rocks. Bedding and faulting strike 120 degrees and dip 70 degrees southwest. Fifteen soil samples taken across the Jim Crow fault identified the fault as a 150 ppb gold spot anomaly against a less than 5 ppb gold background.

Eclipse A.R. 16848 REPORT YEAR: 1987, 9 Pages, 1 Map(s)

OPERATOR(S): **Terra Mines**
AUTHOR(S): Hannigan, P.
MINING DIV: Nelson
LOCATION: NTS 082F06W LAT. 49 22 09 LONG. 117 17 37
CLAIM(S): Eclipse,Imperial
EXPL. TARGET: Gold
WORK DONE: GEOL 30.0 ha - 1 Map(s); 1:5000
GEOLOGY: The claims cover the contact between Cretaceous-Jurassic Nelson Plutonic Rocks and Jurassic Rossland Group volcanics.

Honky Tonk A.R. 17662 REPORT YEAR: 1988, 25 Pages, 2 Map(s)

OPERATOR(S): **Geostrategic Consul.**
AUTHOR(S): Evans, D.S.
MINING DIV: Nelson
LOCATION: NTS 082F06W LAT. 49 23 19 LONG. 117 17 38
CLAIM(S): Honky Tonk,Venus Fr.,Mars
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: MAGG 3.0 km - 1 Map(s); 1:2000
PROS 50.0 ha - 1 Map(s); 1:5000
GEOLOGY: Copper, gold and silver are hosted in quartz veins, veinlets and silicifications in Lower Jurassic Elise Formation rocks. The veins range in width from 30 centimetres to 3 metres, dip vertically or nearly vertically and strike north, north-northeast, northwest and east-southeast. Base and precious metals are closely associated with sulphides, principally chalcopyrite and pyrite.
RELATED A.R.: 11883, 12992, 16173

Rachel A.R. 17172 REPORT YEAR: 1987, 51 Pages, 6 Map(s)

OPERATOR(S): **Northwind Ventures**
AUTHOR(S): Hall, G.I.
MINING DIV: Nelson
LOCATION: NTS 082F06W LAT. 49 18 00 LONG. 117 28 00
CLAIM(S): Rachel 5-6
EXPL. TARGET: Gold,Lead
WORK DONE: EMGR 22.0 km; VLF - 1 Map(s); 1:2500
GEOL 150.0 ha - 2 Map(s); 1:2500,1:500
LINE 22.0 km
MAGG 22.0 km - 1 Map(s); 1:2500
ROAD 2.0 km
ROCK 22 sample(s);AU,AG,PB,ZN
SOIL 718 sample(s);AU,AG,PB,ZN - 2 Map(s); 1:2500
GEOLOGY: Gold and galena occur in the axial portion of a northwesterly trending folded quartz vein that intrudes granodiorite of the Jurassic Nelson Batholith. The vein has an exposed strike length of 25 metres over widths of 10-40 centimetres. The fold plunges at 20 degrees northwest. Well developed barren steeply dipping north-south fractures are a common feature. Weak argillic alteration is limited to the mineralized quartz vein. Several narrow northerly trending lamprophyre dykes intrude the granodiorite.
MINFILE: 082FSW299

Rozan A.R. 18188 REPORT YEAR: 1988, 51 Pages, 9 Map(s)

OPERATOR(S): **Sevensma, P.**
AUTHOR(S): Sevensma, P.
MINING DIV: Nelson
LOCATION: NTS 082F06W LAT. 49 24 00 LONG. 117 21 00
CLAIM(S): Rozan,Gold 1-2,Golden Eagle,Golden Eagle 2-3,Golden Eagle 5
EXPL. TARGET: Gold,Tungsten,Iron,Copper,Zinc,Molybdenum/Molybdenite
WORK DONE: GEOL 170.0 ha - 2 Map(s); 1:2000,1:375
LINE 10.2 km
ROCK 34 sample(s);ME
SOIL 502 sample(s);ME - 7 Map(s); 1:5000
TOPO 1000.0 ha
GEOLOGY:

Quartz veins with a general northwesterly trend cross-cut fine-grained granite of the Lower Cretaceous, Nelson Plutonic Rocks and augite porphyry and tuff of the Lower Jurassic Elise Formation. The veins vary from stringer size to about 0.4 metres in width and the quartz gangue has erratic sulphides as small grains or small masses. Quartz filled fractures in aplite dykes also carry small amounts of sulphides. The pockets, or lenses, of sulphides in the vein also contain some sphalerite and galena and are typically highly oxidized in the exposures near surface.
RELATED A.R.: 15277
MINFILE: 082FSW179

Shaft A.R. 17472 REPORT YEAR: 1988, 85 Pages, 8 Map(s)

OPERATOR(S): **South Pacific Gold**
AUTHOR(S): Seyward, M.
MINING DIV: Nelson
LOCATION: NTS 082F06W LAT. 49 26 30 LONG. 117 16 30
CLAIM(S): Magpie,Eldorado
WORK DONE: EMGR 14.4 km;VLF ,PEM - 3 Map(s); 1:1250
IPOL 1.6 km - 4 Map(s); 1:1250
MAGG 7.2 km - 1 Map(s); 1:1250
GEOLOGY: The property is underlain by Jurassic age Rossland Group volcanics. Mineralization is conformable and structurally controlled and consists of gold and copper with associated pyrite, pyrrhotite, malachite. The occurrence is up to twelve metres thick, and strikes north/northwest and is dips steeply.

Silver Hawk A.R. 17686 REPORT YEAR: 1988, 36 Pages

OPERATOR(S): **Penrose Res.**
AUTHOR(S): Jones, H.M.
MINING DIV: Nelson
LOCATION: NTS 082F06W LAT. 49 27 00 LONG. 117 16 00
CLAIM(S): Perrier 1-4
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: LINE 2.7 km
MAGG 2.7 km
ROAD 1.5 km
SOIL 111 sample(s);ME
UNDV 5.0 m;RHAB
GEOLOGY: The property is underlain by argillite, flow breccia, pillow lava, coarse porphyroblastic flow rocks and biotite tuffite of the Rossland Formation. Porphyritic biotite granite and equigranular biotite of the Nelson batholith outcrop to the west and northwest of the property. Minor feldspar porphyry, basaltic feldspar porphyry and lamprophyre dykes occur locally. Sulphide mineralization occurs in quartz veins, disseminations, and stratiform deposits.
RELATED A.R.: 07393, 10605, 15654
MINFILE: 082FSW208, 082FSW230, 082FSW231

Star A.R. 17806 REPORT YEAR: 1988, 20 Pages, 1 Map(s)

OPERATOR(S): **Ryan Ex.**
AUTHOR(S): Fraser, A.S. Kaufman, M.A.
MINING DIV: Nelson
LOCATION: NTS 082F06W LAT. 49 27 00 LONG. 117 21 30

CLAIM(S): Bee (Lot 14630)
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: ROTD 151.5 m 1 hole(s) - 1 Map(s); 1:5000
GEOLOGY: Anomalous gold-silver-copper mineralization occurs in northwest striking steeply dipping, silicified volcanic and volcaniclastic rocks of the Jurassic Rossland Group. There appears to be both stratigraphic and structural controls to the metal occurence, and there may be an intrusive relationship as well.
MINFILE: 082FSW083

Hope of Discovery A.R. 17713 REPORT YEAR: 1988, 48 Pages, 12 Map(s)

OPERATOR(S): **Forbes Res.**
AUTHOR(S): Borovic, I.
MINING DIV: Nelson
LOCATION: NTS 082F07E LAT. 49 26 59 LONG. 116 42 35
CLAIM(S): Discovery
EXPL. TARGET: Silver,Lead,Zinc,Gold,Tungsten,Copper
WORK DONE: EMGR 22.1 km;VLF - 2 Map(s); 1:5000
LINE 22.1 km
MAGG 22.1 km - 1 Map(s); 1:5000
ROCK 17 sample(s);AU,AG,PB,ZN - 2 Map(s); 1:625,1:100
SOIL 227 sample(s);AU,AG,CU,PB,ZN - 7 Map(s); 1:5000
GEOLOGY: The geology of the property is characterized by Proterozoic sediments of the Purcell and Windermere Supergroups intruded by Cretaceous granitic rocks of the Bayonne Batholith. In many areas limestones and other sediments have undergone contact metamorphism and metasomatism resulting from the granitic intrusion. Vein and skarn type mineralization occur in the area. The Val fault-shear trends north and is the locus for mineralization. Numerous old workings such as Hope of Discovery, Copper Canyon, Imperial and Valporaiso/Government date back to the turn of the century. The workings are located along the Val fault. The area has been explored for high grade silver, lead, zinc, gold, tungsten and copper.
MINFILE: 082FSE044

Totem Gold A.R. 17527 REPORT YEAR: 1988, 70 Pages, 9 Map(s)

OPERATOR(S): **Dobrana Res.**
AUTHOR(S): Borovic, I.
MINING DIV: Nelson
LOCATION: NTS 082F07E LAT. 49 24 34 LONG. 116 40 58
CLAIM(S): German Basin,Totem Gold,Gold Dust
EXPL. TARGET: Lead,Zinc,Silver,Gold
WORK DONE: EMGR 28.5 km;VLF - 2 Map(s); 1:5000
LINE 28.5 km
MAGG 28.5 km - 1 Map(s); 1:5000
SOIL 480 sample(s);AU,AG,CU,PB,ZN - 6 Map(s); 1:5000
GEOLOGY: Proterozoic sediments of Purcell and Windermere Supergroups are intruded by Cretaceous granitic rocks of the Bayonne Batholith. Vein and skarn type mineralization occurs within contact metamorphic rocks. Strong northerly striking shears appear to control mineralization.
MINFILE: 082FSE039

Valparaiso A.R. 17362 REPORT YEAR: 1988, 30 Pages, 1 Map(s)

OPERATOR(S): **Imco Res.**
AUTHOR(S): Greene, A.S.
MINING DIV: Nelson
LOCATION: NTS 082F07E LAT. 49 25 00 LONG. 116 43 00
CLAIM(S): Gov 3-4
EXPL. TARGET: Gold,Silver,Tungsten
WORK DONE: DIAD 122.2 m 2 hole(s);NQ - 1 Map(s); 1:1000
PERD 234.7 m 3 hole(s)
ROAD 2.0 km
SAMP 10 sample(s);AU,AG,CU
GEOLOGY: Biotite granodiorite is cut by narrow aplite and lamprophyre dykes of Mesozoic age. Sheet-like faults and joints strike 030 to 050 degrees and 050 to 080 degrees. Mineralization consists of sylvanite(?) and traces of sphalerite, galena, chalcopyrite, wolframite and arsenopyrite in major fractures.
MINFILE: 082FSE038, 082FSE055

Don A.R. 17738 REPORT YEAR: 1988, 59 Pages

OPERATOR(S): **New Spirit Res. & Dev.**
AUTHOR(S): Murray, J.R.S.
MINING DIV: Nelson
LOCATION: NTS 082F07W LAT. 49 16 27 LONG. 116 54 09
CLAIM(S): Don
EXPL. TARGET: Silver,Copper
WORK DONE: PERD 726.0 m 6 hole(s)
SAMP 225 sample(s);AG,CU
GEOLOGY: Locally metal enriched carbonate units of the Proterozoic Irene Formation occurs. The potential for possible low grade stratabound silver-copper mineralization exists.
RELATED A.R.: 10484
MINFILE: 082FSE082

Buck A.R. 17150 REPORT YEAR: 1988, 23 Pages, 1 Map(s)

OPERATOR(S): **Chapleau Res.**
AUTHOR(S): Banting, R.T.
MINING DIV: Fort Steele
LOCATION: NTS 082F08E, 082G05W LAT. 49 26 50 LONG. 116 01 18
CLAIM(S): Buck 1-5,Buck 12,Buck 14
EXPL. TARGET: Gold
WORK DONE: SILT 32 sample(s);AU,CU,AG,PB,AS - 1 Map(s); 1:20 000
SOIL 101 sample(s);AU,AG,ZN,CU,PB,AS
TREN 205.0 m 3 trench(es)
GEOLOGY: The claims are underlain by the Proterozoic Creston and Aldridge Formations and Moyie Intrusions which are bisected by the Baldy, Buck and Palmer Bar Faults. Mineralization consists of pyrite, hematite and gold.

Moyie River A.R. 16706 REPORT YEAR: 1987

OPERATOR(S): **Queenstake Res.**
AUTHOR(S): Henrick, M.
MINING DIV: Fort Steele
LOCATION: NTS 082F08E LAT. 49 23 29 LONG. 116 00 44
CLAIM(S): Placer Lease 19775,Placer Lease 1902
WORK DONE: META 5 sample(s)
GEOLOGY: The property is underlain by the Proterozoic Aldridge Formation. The area of interest lies within auriferous gravels of a Tertiary channel which parallels the northwest bank of the Moyie River Valley.
RELATED A.R.: 15622, 15766

Purcell A.R. 17514 REPORT YEAR: 1988, 265 Pages, 2 Map(s)

OPERATOR(S): **Chapleau Res.**
AUTHOR(S): Banting, R.T.
MINING DIV: Fort Steele
LOCATION: NTS 082F08E, 082F09E LAT. 49 30 00 LONG. 116 04 00
CLAIM(S): LDM,BUCK,BAR,RACKI,PALM,BAR LODE,CRYSTAL,LUCKY BAR
WORK DONE: GEOL 5000.0 ha - 2 Map(s); 1:10 000
ROCK 390 sample(s);AU,PB,CU,ZN,AS
SAMP 16 sample(s);AU,PB,CU,ZN,AS
SILT 172 sample(s);AU,PB,CU,ZN,AS
SOIL 2678 sample(s);AU,PB,CU,ZN,AS
TREN 1220.0 m

GEOLOGY: The claim area is underlain by Precambrian sedimentary rocks of the Kitchener, Creston, and Aldridge Formations. In the Perry Creek area, the Creston and Kitchener Formations predominates, and are lenticular and trend north. They are commonly fault bounded by the Aldridge Formation to the north. Moyie sills are distributed throughout the map area.

MINFILE: 082FNE059, 082ESE095

Swenson A.R. 17573 REPORT YEAR: 1988, 11 Pages

OPERATOR(S): **Trans-Arctic Ex.**
AUTHOR(S): Sywulsky, C.
MINING DIV: Fort Steele
LOCATION: NTS 082F08E LAT. 49 25 00 LONG. 116 14 00
CLAIM(S): Realthing,Call Back,Viking
EXPL. TARGET: Gold,Copper,Silver
WORK DONE: PROS 100.0 ha

GEOLOGY: The property is underlain by sediments of the middle and upper Proterozoic Creston and Kitchener Formations. The Middle Creston is composed of green, grey and purple argillaceous quartzite. The Upper Creston is composed mainly of grey weathering argillites. The Kitchener Formation consists of vari-coloured argillites and dolomitic argillites weathering buff to brown. The rocks strike generally 020 to 40 degrees and dip vertical to 75 degrees east, and host quartz lenses and veins. Trenching and shafts with tunnel work, done at the turn of the century, were located on the property.

Morgan A.R. 17111 REPORT YEAR: 1988, 27 Pages, 2 Map(s)

OPERATOR(S): **Chapleau Res.**
AUTHOR(S): Banting, R.T.
MINING DIV: Fort Steele
LOCATION: NTS 082F09E LAT. 49 33 30 LONG. 116 02 00
CLAIM(S): Racki 2-4,Racki 10-11
EXPL. TARGET: Gold
WORK DONE: GEOL 450.0 ha - 2 Map(s); 1:10 000,1:4800
ROCK 23 sample(s);CU,PB,AG,AU,AS
SOIL 99 sample(s);CU,PB,AG,AU,AS

GEOLOGY: Pre-Cambrian Middle Creston Formation argillaceous quartzite, Kitchener Formation argillaceous quartzite with limestone, and Moyie diorite sills are cut by the Perry Creek Fault system. Copper, lead, zinc sulphide mineralization with anomalous values of gold and silver occur in large, fault-controlled quartz veins.

Paris A.R. 17104 REPORT YEAR: 1988, 19 Pages, 1 Map(s)

OPERATOR(S): **Cathedral Gold**
AUTHOR(S): Edmunds, F.R.
MINING DIV: Fort Steele
LOCATION: NTS 082F09E LAT. 49 31 00 LONG. 116 03 30
CLAIM(S): Paris 1-2
EXPL. TARGET: Gold
WORK DONE: HMIN 34 sample(s);ME - 1 Map(s); 1:5000

GEOLOGY: The claims are underlain by grey, grey-green quartzites and argillaceous quartzites of the Proterozoic Creston Formation. Gold mineralization is thought to be associated with fault systems located along or parallel to Perry Creek.

RELATED A.R.: 12938, 14191, 15648

Paris A.R. 18194 REPORT YEAR: 1988, 22 Pages, 6 Map(s)

OPERATOR(S): **Cathedral Gold**
AUTHOR(S): Johannessen, D. Gorc, D.M.
MINING DIV: Fort Steele
LOCATION: NTS 082F09E LAT. 49 31 45 LONG. 116 03 30
CLAIM(S): Paris 1-2
EXPL. TARGET: Gold
WORK DONE: EMGR 14.0 km;VLF - 4 Map(s); 1:5000
MAGG 14.0 km - 1 Map(s); 1:2500
SOIL 134 sample(s);ME - 1 Map(s); 1:5000

GEOLOGY: The claims are underlain by grey-green quartzites and argillaceous quartzites of the Middle Proterozoic Creston Formation. Gold mineralization is thought to be associated with fault systems located along and parallel to Perry Creek.

Perth A.R. 17786 REPORT YEAR: 1988, 27 Pages, 2 Map(s)

OPERATOR(S): **Trans-Arctic Ex.**
AUTHOR(S): Cruickshank, P.
MINING DIV: Fort Steele
LOCATION: NTS 082F09E LAT. 49 31 30 LONG. 116 01 00
CLAIM(S): Perth
EXPL. TARGET: Gold
WORK DONE: EMGR 4.4 km; VLF - 2 Map(s); 1:1000

GEOLOGY: The property occurs near the contact between the Creston Formation and the Kitchener-Siyeh Formation. The underlying rocks are the Creston Formation argillites and quartzites. The Cld Baldy Fault appears to strike northeast through the claim. Nearby, quartz veins in the Creston quartzites carry free gold.

St. Mary A.R. 16971 REPORT YEAR: 1988, 34 Pages, 3 Map(s)

OPERATOR(S): **Esso Res. Can.**
AUTHOR(S): Dom, K.
MINING DIV: Fort Steele
LOCATION: NTS 082F09E, 082F09W LAT. 49 35 51 LONG. 116 14 01
CLAIM(S): Mac 1-10
EXPL. TARGET: Copper,Lead,Zinc,Gold,Silver
WORK DONE: EMGR 3.0 km;HLEM - 1 Map(s); 1:2500
GEOL 3600.0 ha - 1 Map(s); 1:10 000
ROCK 23 sample(s);ME

SILT 29 sample(s);ME - 1 Map(s): 1:10 000
GEOLOGY: The claims are underlain by Helikian Purcell Supergroup Lower Aldridge Formation meta-argillites, minor quartzites/wackes and Middle Aldridge Formation quartzites/wackes and minor argillites. The stratigraphy is moderately west dipping and locally steep. Minor base metal and precious metal occurrences are associated with shear zones and post-date the sediments.

Sullivan A.R. 16997 REPORT YEAR: 1988, 32 Pages

OPERATOR(S): **Cominco (Kimberley)**
AUTHOR(S): Lajoie, J.J.
MINING DIV: Fort Steele
LOCATION: NTS 082F09E, 082F16E LAT. 49 45 00 LONG. 116 05 48
CLAIM(S): Imp,Haze,Ena,Bath,Bread,Brace,Ell,Eke,Happy,Hawk,Bit,Beat,Mat 60-63,Mat 106-110,Mat 35[illegible]-359
EXPL. TARGET: Lead,Zinc,Silver,Tin
WORK DONE: EMGR 16.0 km;HLEM
LINE 22.5 km
GEOLOGY: The UTEM survey reported on herein was conducted over Proterozoic Aldridge Formation siliciclastic and argillaceous strata believed to have been deposited in an intracratonic basin. These rocks host the stratiform Sullivan silver-lead-zinc orebody.

Sullivan A.R. 17141 REPORT YEAR: 1988, 25 Pages

OPERATOR(S): **Cominco**
AUTHOR(S): Ransom, P.W.
MINING DIV: Fort Steele
LOCATION: NTS 082F09E LAT. 49 44 30 LONG. 116 03 25
CLAIM(S): Telfer,Burgess,Doug,Panta
EXPL. TARGET: Lead,Zinc,Silver,Tin
WORK DONE: DIAD 1738.0 m 1 hole(s);HQ ,NQ
ROAD 1.8 km
GEOLOGY: The drill hole reported on herein intersected sediments of the Middle Proterozoic Middle Aldridge Formation. No sulphide mineralization of interest was intersected.

Chapleau Creek A.R. 17367 REPORT YEAR: 1988, 132 Pages, 38 Map(s)

OPERATOR(S): **King Jack Res.**
AUTHOR(S): Santos, P.J.
MINING DIV: Slocan
LOCATION: NTS 082F11W LAT. 49 44 38 LONG. 117 21 32
CLAIM(S): King Jack,J CRK 2,Ragamac 2-4,Full House
EXPL. TARGET: Gold,Silver
WORK DONE: LINE 97.2 km
SOIL 2440 sample(s);AU,AG,CU,PB,ZN,AS - 38 Map(s); 1:11 320,1:1852,1:1000
GEOLOGY: Hydrothermal Bonanza-type gold and silver bearing quartz veins with associated pyrite cuts Cretaceous-Jurassic Nelson Plutonic Rocks with associated propylitization, argillization and silicification. Detected soil anomalies and geochemical zones are areas with elevated silver, lead, zinc and copper punctuated by high gold contents which are associated with quartz veins.
MINFILE: 082FNW131, 082FNW132, 082FNW184

Hope A.R. 17323 REPORT YEAR: 1988, 79 Pages, 7 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Bradish, L. Mitchell, I.G.
MINING DIV: Slocan
LOCATION: NTS 082F11W LAT. 49 43 28 LONG. 117 25 01
CLAIM(S): Hope 2-9,Quebec
EXPL. TARGET: Silver,Lead,Zinc
WORK DONE: DIAD 76.5 m 2 hole(s);AQ - 1 Map(s); 1:250
EMGR 10.0 km;HLEM - 1 Map(s); 1:2500
GEOL 100.0 ha - 1 Map(s); 1:2500
MAGG 10.0 km - 1 Map(s); 1:2500
ROAD 3.8 km
ROCK 68 sample(s);MO,CU,AG,ZN,PB,AU,AS
SAMP 31 sample(s);MO,AG,ZN,PB,AU
TREN 61.5 m 7 trench(es) - 3 Map(s); 1:2500,1:100
GEOLOGY: The property is underlain in part by a roof pendant of Jurassic-Triassic Slocan Group metasediments lying within Cretaceous-Jurassic Nelson Plutonic Rocks. Sediments strike northwest with shallow dips to the southwest. Two massive sulphide showings (silver, lead, zinc) are present. One is skarned sediments hosting sphalerite, galena, pyrite and pyrrhotite at or near the granodiorite contact. The other is stratiform pyrite, pyrrhotite, sphalerite and galena.
RELATED A.R.: 12980, 14764, 16063
MINFILE: 082FNW129

Day A.R. 17335 REPORT YEAR: 1988, 7 Pages, 1 Map(s)

OPERATOR(S): **McCrory, M. Steigenberger, L.**
AUTHOR(S): McCrory, M. Higgins, A.G.
MINING DIV: Slocan
LOCATION: NTS 082F12E LAT. 49 44 22 LONG. 117 35 13
CLAIM(S): Day
EXPL. TARGET: Gold,Barium/Barite
WORK DONE: PROS 125.0 ha - 1 Map(s); 1:5000
TREN 10.0 m 1 trench(es)
GEOLOGY: The claim appears to be underlain by gneissic rocks. Arsenopyrite mineralization is found as disseminations and coatings in a quartz-breccia zone approximately 175 metres long and 50 metres wide.

Cat A.R. 17954 REPORT YEAR: 1988, 40 Pages, 5 Map(s)

OPERATOR(S): **Morrison, L.**
AUTHOR(S): Morrison, L.
MINING DIV: Slocan
LOCATION: NTS 082F14E LAT. 49 55 00 LONG. 117 03 00
CLAIM(S): Cat 2
EXPL. TARGET: Silver,Lead
WORK DONE: GEOL 120.0 ha - 1 Map(s); 1:5000
PETR 3 sample(s)
ROCK 39 sample(s);AG,PB,CU,ZN,AU
SOIL 144 sample(s);AG,PB,CU,ZN - 4 Map(s); 1:5000
GEOLOGY: The property is underlain by Slocan Group metasediments intruded by minor felsic dykes and sills. Dominant rock types on the north half of the property are argillites and phyllites. In the southwest corner of Cat 2, the grade of metamorphism is high, with abundant staurolite bearing hornfels and schist. Steeply dipping bedding strikes northwest to northeast. Near the centre of Cat 2, a 10 by 2 metre quartz lens contains minor disseminations of very argentiferous galena.
RELATED A.R.: 16556

MINFILE: 082FNW

Comstock-Silver Cup A.R. 17821 REPORT YEAR: 1988, 93 Pages, 7 Map(s)

OPERATOR(S): **Dragoon Res.**
AUTHOR(S): MacDonald, E.D.
MINING DIV: Slocan
LOCATION: NTS 082F14E LAT. 49 53 39 LONG. 117 13 42
CLAIM(S): Comstock (L.1814),Silver Chief (L.1813),Silver Cup (L.1815),C.S.C. 1-2
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE:
DIAD 1008.0 m 4 hole(s);NQ ,BQ
GEOL 196.0 ha - 4 Map(s); 1:2500,1:200
ROAD 22.8 km
SAMP 215 sample(s);PB,ZN,AG,AU
TOPO 5.0 ha - 3 Map(s); 1:200
TREN 187.5 m 4 trench(es)
UNDD 99.0 m 2 hole(s);AQ
UNDV 170.0 m

GEOLOGY: The area is underlain by granite and granodiorite of the Cretaceous-Jurassic Nelson Plutonic Rocks and/or Valhalla Intrusions. Galena, tetrahedrite and silver mineralization occurs in quartz fissure veins in extensive and persistent shear zones that have strikes of 035 to 055 degrees and dips of 35 to 55 degrees southeast. Mineralization has been traced for a strike length of 2100 metres between the elevations of 1670 and 2040 metres.

RELATED A.R.: 08583
MINFILE: 082FNW077

Purcell A.R. 16984 REPORT YEAR: 1988, 40 Pages, 2 Map(s)

OPERATOR(S): **Rawdon Res.**
AUTHOR(S): Spearing, C.G. Ostler, J.
MINING DIV: Slocan
LOCATION: NTS 082F14E LAT. 49 59 18 LONG. 117 11 00
CLAIM(S): Grey Copper,Grey Copper Fr. 1,Goodenough,Purcell,Idaho 2,Rawdon,Link 1
EXPL. TARGET: Silver,Lead,Zinc
WORK DONE:
LINE 7.4 km
SOIL 219 sample(s);CU,PB,ZN,AG,AS - 2 Map(s); 1:2500

GEOLOGY: The Purcell Property is underlain by fissile metasediments of the Slocan series which are intruded by sill-like granodioritic bodies. Northeast-trending tear faults host quartz-carbonate veins that are mineralized with argentite, pyrargyrite, native silver, galena, tetrahedrite and sphalerite. Three veins on the property have previously been mined at a profit. They are the Goodenough vein, the Grey Copper vein and the Idaho vein. Ore grades in these veins ran up to 22630 grams of silver per tonne.

MINFILE: 082FNW033, 082FNW230

Golden Thorn A.R. 17064 REPORT YEAR: 1987, 41 Pages

OPERATOR(S): **Malkin, P.**
AUTHOR(S): Malkin, P.
MINING DIV: Slocan
LOCATION: NTS 082F14W LAT. 49 54 30 LONG. 117 20 00
CLAIM(S): Golden Thorn
EXPL. TARGET: Lead,Zinc,Gold
WORK DONE:
PROS 20.0 ha

GEOLOGY: The few outcrops on the property consist of granite, quartzite and fine-grained metasedimentary rocks. The author feels that the north-west flowing creeks on the property represent zones of weakness and possible sites of mineralization.

Highland A.R. 17652 REPORT YEAR: 1988, 23 Pages

OPERATOR(S): **Northair Min.**
AUTHOR(S): Kosmynka, D.P.
MINING DIV: Slocan
LOCATION: NTS 082F14W LAT. 49 51 30 LONG. 117 23 00
CLAIM(S): Highland
EXPL. TARGET: Lead,Zinc,Silver,Copper
WORK DONE:
SOIL 58 sample(s);MO,CU,PB,ZN,AG,WO

GEOLOGY: The property is underlain by Triassic and Lower Jurassic Slocan Group slate, argillite, limestone, conglomerate and tuff, which are intruded by porphyritic granite and granodiorite, diorite, quartz diorite, and hornblende syenite of the Jurassic Nelson Intrusions.

L.H. A.R. 16738 REPORT YEAR: 1987

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Mitchell, I.G.
MINING DIV: Slocan
LOCATION: NTS 082F14W LAT. 49 53 41 LONG. 117 20 14
CLAIM(S): Lot 2229,Lot 5738-5740,Lots 6908-6911,Lots 14515-14516,Lots 14924-14925
WORK DONE:
DIAD 794.8 m 2 hole(s);NQ
GEOL 112.0 ha
LINE 6.6 km
PITS 1 pit(s)
ROCK 129 sample(s);CU,PB,ZN,MO,AS,AG,AU
SAMP 425 sample(s);AU,AG,CU,PB,ZN,MO,AS
SOIL 346 sample(s);AS,AG,CU,PB,ZN,MO,AU
TREN 75.0 m

GEOLOGY: The property is underlain by a roof pendant of Jurassic-Triassic Slocan Group sediments conformably overlain by Jurassic Rossland Group volcanics. Gold occurrences are associated with pyrite-pyrrhotite-arsenopyrite mineralization along major shear zones or structures which have been variably silicified, chloritized and/or clay altered.

RELATED A.R.: 15747, 16665

Maurier Creek-PBX A.R. 17265 REPORT YEAR: 1988, 88 Pages, 11 Map(s)

OPERATOR(S): **PBX Res.**
AUTHOR(S): Lyman, D.A.
MINING DIV: Slocan
LOCATION: NTS 082F14W LAT. 49 53 42 LONG. 117 16 47
CLAIM(S): Pandora's Box,Condo 5,Condo 7,Palada,Wedge 1-2,Le Roi (L.5754)
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE:
EMGR 11.0 km;VLF - 4 Map(s); 1:2500
GEOL 318.7 ha - 3 Map(s); 1:10 000,1:5000,1:2500,1:2000
LINE 22.5 km
LSUR 6.8 km - 2 Map(s); 1:10 000,1:1000
MAGG 20.0 km - 2 Map(s); 1:2500
ROCK 48 sample(s);ME
SILT 32 sample(s);ME
SOIL 275 sample(s);ME
TREN 50.0 m 2 trench(es)

GEOLOGY: The claims are underlain by porphyritic granite of the

Cretaceous-Jurassic Nelson Plutonic Rocks and Jurassic-Triassic Slocan Group marine sediments which have been invaded by quartz veins with sphalerite, galena, pyrite and arsenopyrite. Shear zones with varying amounts of brecciated quartz have associated copper, pyrite, galena, sphalerite, lesser tetrahedrite and argentite. Calcite alteration is common.

MINFILE: 082FNW

Midas Touch A.R. 17360 REPORT YEAR: 1988, 58 Pages, 1 Map(s)

OPERATOR(S): **Midas Creek Ex.**
AUTHOR(S): Butler, S.P. DiSpirito, F.
MINING DIV: Slocan
LOCATION: NTS 082F14W LAT. 49 53 33 LONG. 117 18 40
CLAIM(S): Midas Touch,Midas Touch 2
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: EMGR 7.4 km;VLF ,HLEM
GEOL 24.0 ha
LINE 9.5 km
MAGG 4.8 km
ROAD 1.5 km
ROCK 26 sample(s);CU,PB,ZN,AU,AG
SOIL 368 sample(s);CU,PB,ZN,AG,AU,AS,SB - 1 Map(s); 1:2000
TREN 45.0 m 1 trench(es)

GEOLOGY: The property is underlain by high grade metamorphic rocks of the Jurassic-Triassic Slocan Group. An intrusive contact with Cretaceous-Jurassic Nelson Plutonic Rocks occurs near the centre of the work area. Mineralization is of two types: a) small, high grade silver, lead, zinc (gold) lenses and b) disseminated sulphides in silicified shears with low gold and silver values.

MINFILE: 082FNW

Rain A.R. 17168 REPORT YEAR: 1988, 27 Pages

OPERATOR(S): **Yukon Min.**
AUTHOR(S): Nicholson, G.
MINING DIV: Slocan
LOCATION: NTS 082F14W LAT. 49 49 00 LONG. 117 26 00
CLAIM(S): Rain 1-2
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 10.0 ha
SAMP 15 sample(s);AU,AG,CU,PB,ZN
TRAL 3.0 km

GEOLOGY: Gold-silver mineralization occurs in quartz veins up to 1.0 metre wide. The veins strike north-south and dip variably from 15 degrees to 50 degrees to the east. The veins cut granite of the Cretaceous Nelson Batholith.

MINFILE: 082FNW164

Silvana A.R. 16767 REPORT YEAR: 1987

OPERATOR(S): **Dickenson Mines**
AUTHOR(S): Makepeace, D.
MINING DIV: Slocan
LOCATION: NTS 082F14W LAT. 49 58 27 LONG. 117 15 27
CLAIM(S): Irene Fr.,Loudin,Tommy Fr.,M 203
WORK DONE: RECL
STRI
TREN 61.0 m 1 trench(es)
UNDD 5578.0 m 114 hole(s);AQ
UNDV 607.8 m

GEOLOGY: The claims are underlain by Jurassic-Triassic Slocan Group sediments. There are at least 9 hydrothermal lode-faults on the property.

RELATED A.R.: 15774

Golden A.R. 17772 REPORT YEAR: 1988, 32 Pages, 1 Map(s)

OPERATOR(S): **La Ronge Res.**
AUTHOR(S): Roberts, P.S.
MINING DIV: Slocan
LOCATION: NTS 082F15W LAT. 49 46 30 LONG. 116 58 00
CLAIM(S): Prince 1-4,Dragon South,Margaret
EXPL. TARGET: Silver,Lead,Zinc
WORK DONE: LINE 10.7 km
MAGG 9.8 km - 1 Map(s); 1:2000
SOIL 78 sample(s);CU,PB,ZN,AG,AS

GEOLOGY: The property is underlain by Triassic to Jurassic Slocan and Milford Group rocks consisting of limestone and carbonaceous argillite which are in contact with the Cretaceous Nelson Batholith. Very little outcrop present on the property. Mineralization consists of enhanced silver values in soil samples.

RELATED A.R.: 12621

True Blue A.R. 17727 REPORT YEAR: 1988, 205 Pages, 40 Map(s)

OPERATOR(S): **QPX Min.**
AUTHOR(S): Lee, L.J.
MINING DIV: Slocan
LOCATION: NTS 082F15W LAT. 49 53 00 LONG. 116 58 00
CLAIM(S): True Blue,True,Blue,Buchanan 1-3,Kaslo,Kas 6
EXPL. TARGET: Copper,Zinc,Lead,Silver,Gold
WORK DONE: EMGR 58.0 km;VLF - 9 Map(s); 1:5000
GEOL 275.0 ha - 3 Map(s); 1:2500,1:10 000
IPOL 13.0 km - 6 Map(s); 1:2500
LINE 58.0 km
MAGG 58.0 km - 3 Map(s); 1:5000
ROCK 73 sample(s);ME - 1 Map(s); 1:10 000
SOIL 1493 sample(s);ME - 18 Map(s); 1:5000

GEOLOGY: Metamorphosed sedimentary and volcanic rocks of the Mississippian Milford Group host a small occurrence of banded polymetallic volcanogenic massive sulphide mineralization. Both mafic and felsic metavolcanics occur, cut by large subvolcanic(?) dioritic sills and dykes.

RELATED A.R.: 07587, 09428, 10336, 15294
MINFILE: 082FNE002

Verna A.R. 17060 REPORT YEAR: 1988, 19 Pages

OPERATOR(S): **Cascadia Mines & Res.**
AUTHOR(S): Timmins, W.
MINING DIV: Slocan
LOCATION: NTS 082F15W LAT. 49 47 30 LONG. 116 55 00
CLAIM(S): RFH
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE: SOIL 112 sample(s);PB,ZN,AG

GEOLOGY: The property is situated within the Ainsworth Mining Camp, which is underlain by complexly folded metamorphic rocks of the Kootenay Arc. These rocks are favourable hosts to lead-zinc mineralization.

RELATED A.R.: 06582, 08050

MINFILE: 082FNE032

Sullivan   A.R. 16732   REPORT YEAR: 1987

OPERATOR(S): **Cominco**

AUTHOR(S): Ransom, P.W.

MINING DIV: Fort Steele

LOCATION: NTS 082F16E, 082G13W, 082F09E   LAT. 49 44 35 LONG. 116 03 12

CLAIM(S): Lots 9535-9548,Lots 12878-12893,Lots 12907-12924,Lots 13227-13286,Lots 13503-13525, Lots 13536-13599

WORK DONE:
DIAD 2455.8 m 5 hole(s);NQ ,HQ
EMGR 16.0 km;HLEM
GEOL 4000.0 ha
LINE 22.5 km
SAMP 7 sample(s);ME

GEOLOGY: The claims are underlain by Proterozoic Aldridge and Creston Formation sediments. The dominant rock types are wacke, quartz wacke, and argillite.

RELATED A.R.: 03621, 05462, 05463, 06189, 06656, 06660, 06661, 06785, 06786, 06970, 07020, 07181, 07182, 0742

FERNIE 082G

Flathead   A.R. 18091   REPORT YEAR: 1988, 17 Pages, 10 Map(s)

OPERATOR(S): **Placer Dome**

AUTHOR(S): Cameron, R.S. Fox, P.E.

MINING DIV: Fort Steele

LOCATION: NTS 082G02E   LAT. 49 08 00 LONG. 114 32 30

CLAIM(S): Flathead 6,Flathead 8,Flathead 12

EXPL. TARGET: Gold

WORK DONE:
IPOL 7.8 km - 5 Map(s); 1:5000,1:1250
LINE 12.8 km
ROAD 2.0 km
ROCK 80 sample(s);ME - 2 Map(s); 1:10 000,1:5000
SOIL 62 sample(s);ME - 1 Map(s); 1:5000
TREN 140.0 m 2 trench(es) - 2 Map(s); 1:250

GEOLOGY: A block-faulted assemblage of Devonian, Mississippian and Permian limestones, dolomites, shales and quartzites have been intruded by Cretaceous trachyte stocks. Local contact effects include silicification and formation of marble and calcsilicate skarn. Gold soil anomalies occur over the stocks and surrounding limestones.

RELATED A.R.: 14162

Howell   A.R. 16908   REPORT YEAR: 1987, 29 Pages, 15 Map(s)

OPERATOR(S): **Cominco**

AUTHOR(S): Termuende, T. Casselman, M.

MINING DIV: Fort Steele

LOCATION: NTS 082G02E   LAT. 49 14 00 LONG. 114 43 00

CLAIM(S): Howell 1,Howell 3-4

EXPL. TARGET: Gold,Silver,Lead

WORK DONE:
GEOL 200.0 ha - 3 Map(s); 1:5000,1:2500,1:200
ROCK 65 sample(s);PB,AU,AG
SOIL 619 sample(s);PB,ZN,AG,AU,AS - 12 Map(s); 1:5000,1:2500

GEOLOGY: The claims are underlain by complexly faulted Proterozoic, Paleozoic and Mesozoic sedimentary rocks and intrusive Cretaceous to Tertiary pyritic and altered trachyte-syenite plutons, dykes and sills.

MINFILE: 082GSE037, 082GSE048

Stone   A.R. 18152   REPORT YEAR: 1988, 25 Pages

OPERATOR(S): **Minnova**

AUTHOR(S): Pirie, I.D.

MINING DIV: Fort Steele

LOCATION: NTS 082G04W   LAT. 49 10 00 LONG. 115 55 00

CLAIM(S): Stone 8-14

EXPL. TARGET: Lead,Zinc

WORK DONE: GRAV 14.9 km

GEOLOGY: Rocks of the Proterozoic Aldridge Formation are folded in a gently northeast plunging anticline and are intruded by Moyie sills of gabbroic composition. There is no known mineralization on the property.

RELATED A.R.: 17633

Stoney   A.R. 17633   REPORT YEAR: 1988, 88 Pages, 14 Map(s)

OPERATOR(S): **Minnova**

AUTHOR(S): Pirie, I.D.

MINING DIV: Fort Steele

LOCATION: NTS 082G04W   LAT. 49 10 00 LONG. 115 55 00

CLAIM(S): Stone 1-18

WORK DONE:
EMGR 12.0 km;CSMT
GEOL 7525.0 ha - 2 Map(s); 1:10 000
LINE 15.0 km
ROCK 226 sample(s);ME,AU,AG - 12 Map(s); 1:10 000

GEOLOGY: The area is underlain by Proterozoic Aldridge Formation which is folded in a gently northeast plunging anticline and is intruded by Moyie sills of gabbrioc composition.

Top   A.R. 17078   REPORT YEAR: 1988, 94 Pages, 1 Map(s)

OPERATOR(S): **Chevron Can. Res.**

AUTHOR(S): Edmunds, F.R.

MINING DIV: Fort Steele

LOCATION: NTS 082G04W   LAT. 49 05 13 LONG. 115 58 59

CLAIM(S): Top

EXPL. TARGET: Lead,Zinc,Silver

WORK DONE: DIAD 610.5 m 1 hole(s);NQ - 1 Map(s); 1:1000

GEOLOGY: The property is underlain by Helikian sandstone, siltstone and argillites assigned to the Middle Aldridge Formation. These have been metamorphosed to upper greenschist facies (characterized by a quartz-muscovite-biotite-garnet assemblage) and intruded by dioritic intrusive rocks assigned to the Moyie Intrusions. Tourmalinite occurs over a 80 metre stratigraphic interval within the Aldridge Formation.

Vine   A.R. 17899   REPORT YEAR: 1988, 24 Pages, 1 Map(s)

OPERATOR(S): **Cominco**

AUTHOR(S): Hagen, A.S.

MINING DIV: Fort Steele

LOCATION: NTS 082G05E, 082G05W LAT. 49 27 00 LONG. 115 45 00
CLAIM(S): Vine 54,Vine 56,Vine 58
EXPL. TARGET: Lead,Zinc
WORK DONE: DIAD 1156.1 m 2 hole(s);NQ - 1 Map(s); 1:50 000
GEOLOGY: The Vine claims cover northeast and east-dipping Middle Aldridge sediments of pre Cambrian age, composed predominantly of bedded quartzwackes, quartzitic wackes and wackes intruded by gabbro sills and dykes. The area is bounded by three major faults: the east-west trending Cranbrook Fault on the north, the northwest-southeast trending Gold Creek Fault on the east, and the northeast-southwest trending Moyie Fault on the southeast. To date, no mineralization of economic significance has been found on the property.
RELATED A.R.: 16456

Vi A.R. 17933 REPORT YEAR: 1988, 11 Pages, 1 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Edmunds, F.R.
MINING DIV: Fort Steele
LOCATION: NTS 082G05E LAT. 49 22 00 LONG. 115 52 00
CLAIM(S): Vine 26,Vine 29
EXPL. TARGET: Lead,Zinc,Silver,Mercury
WORK DONE: ROCK 100 sample(s);PB,ZN,AG,HG - 1 Map(s); 1:10 000
GEOLOGY: The Vine claims cover northeast and east dpping, PreCambrian Middle Aldridge sediments composed predominantly of bedded quartzitic wackes and wackes intruded by gabbro sills and dykes. The area is bounded by three major faults, the east trending Cranbrook Fault on the north, the northwest trending Gold Creek Fault on the east and the northeast trending Moyie Fault on the southeast. To date, no mineralization of economic significance has been found on the property.

Bar A.R. 16697 REPORT YEAR: 1987

OPERATOR(S): **Leask, J.M.**
AUTHOR(S): Cartwright, P.
MINING DIV: Fort Steele
LOCATION: NTS 082G05W LAT. 49 27 58 LONG. 115 54 54
CLAIM(S): Vine 55,Bar 6-7,Bar 12
WORK DONE: REST 8.2 km
GEOLOGY: The property is underlain by Proterozoic Aldridge Formation quartzite and siltstone with thinly laminated argillites and siltstones.
RELATED A.R.: 00863, 01043, 01174, 01178, 01244, 01670, 12930

Lamb A.R. 18142 REPORT YEAR: 1988, 37 Pages

OPERATOR(S): **Rolan, S.R.**
AUTHOR(S): Rolan, S.R.
MINING DIV: Fort Steele
LOCATION: NTS 082G05W LAT. 49 19 00 LONG. 115 49 00
CLAIM(S): Lamb 1-2
WORK DONE: PROS 750.0 ha
GEOLOGY: The property is underlain by argillites and quartzites of the Upper Proterozoic Aldridge and Creston Formations.

ML 62 A.R. 18128 REPORT YEAR: 1988, 34 Pages

OPERATOR(S): **Cominco**
AUTHOR(S): Schultze, H.C.
MINING DIV: Fort Steele
LOCATION: NTS 082G05W LAT. 49 15 30 LONG. 115 51 00
CLAIM(S): ML 62
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE: ROCK 810 sample(s);ME
GEOLOGY: The Sandy and Ald claims are underlain by Helikian Middle Aldridge quartzitic wacke turbidites and finer-grained inter-turbidite argillaceous packages. This sequence has been intruded by Moyie gabbro sills and dykes. The major structure is an open, gently north-plunging anticline. Geochemical results indicate a single large cluster and several smaller clusters of anomalous lead and zinc values.
RELATED A.R.: 16681

McNeil Creek A.R. 18117 REPORT YEAR: 1988, 19 Pages, 6 Map(s)

OPERATOR(S): **South Kootenay Goldfields**
AUTHOR(S): Lloyd, J.
MINING DIV: Fort Steele
LOCATION: NTS 082G05W LAT. 49 21 00 LONG. 115 59 00
CLAIM(S): Ram 1-2,Mar 3-4
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold
WORK DONE: EMGR 62.0 km 2 ;VLF ,HLEM - 4 Map(s); 1:5000
MAGG 31.0 km - 2 Map(s); 1:5000
GEOLOGY: The property is underlain by Middle Proterozoic Aldridge Formation comprised of siltstones and quartzites. A series of northwest trending shear zones with quartz veins cut the stratigraphy at high angles.
RELATED A.R.: 16606

Cedar A.R. 17757 REPORT YEAR: 1988, 11 Pages

OPERATOR(S): **Stanfield, R.H.**
AUTHOR(S): Allen, A.R.
MINING DIV: Fort Steele
LOCATION: NTS 082G06E LAT. 49 24 29 LONG. 115 13 49
CLAIM(S): Cedar 3
EXPL. TARGET: Copper
WORK DONE: ROAD 5.0 km
ROTD 246.2 m 2 hole(s)
GEOLOGY: The major Bull River fault bisects the Cedar 1A group. It strikes northwest and dips southwest below the Rocky Mountain Trench. Proterozoic Aldridge Formation strata are exposed on the north boundary of the Cedar 5 claim and in a series of outcrops along the east boundary of the group. There are no outcrops on the remainder of the Cedar 1A group, however, 2.5 kilometres to the northwest Devonian and Mississippian limestone strata are exposed across the full width of the Rocky Mountain Trench.

Dogwood A.R. 17813 REPORT YEAR: 1988, 10 Pages

OPERATOR(S): **Stanfield, R.H.**
AUTHOR(S): Allen, A.R.
MINING DIV: Fort Steele
LOCATION: NTS 082G06E LAT. 49 21 55 LONG. 115 11 26
CLAIM(S): Dogwood 5

EXPL. TARGET: Copper,Silver,Gold
WORK DONE: ROTD 183.7 m 1 hole(s)
GEOLOGY: Precambrian Gateway, Roosville and Phillips Formations sediments occur on the west. The central area is underlain by Cambrian, Devonian and Mississippian rocks. The Don showings occur on the Dogwood 5 and the Strathcona-Empire workings a short distance to the north.
MINFILE: 082GSW048

Dogwood A.R. 17758 REPORT YEAR: 1988, 11 Pages

OPERATOR(S): **Stanfield, R.H.**
AUTHOR(S): Allen, A.R.
MINING DIV: Fort Steele
LOCATION: NTS 082G06E LAT. 49 22 50 LONG. 115 12 38
CLAIM(S): Dogwood 8
EXPL. TARGET: Copper,Lead,Silver,Gold
WORK DONE: ROAD 13.0 km
ROTD 122.8 m 1 hole(s)
GEOLOGY: The property is underlain by the Proterozoic Aldridge Formation composed of argillite, argillaceous quartzite and quartzite. Faulting trends are from the northeast to northwest. Intrusive rocks include granodiorite, diorite and lamprophyre dykes. Mineralized shears and disseminations consist of pyrite, pyrrhotite, chalcopyrite and galena.
MINFILE: 082GSW017

Elderberry A.R. 17934 REPORT YEAR: 1988, 11 Pages

OPERATOR(S): **Stanfield, R.H.**
AUTHOR(S): Allen, A.R.
MINING DIV: Fort Steele
LOCATION: NTS 082G06E LAT. 49 20 00 LONG. 115 09 00
CLAIM(S): Elderberry 4
EXPL. TARGET: Copper,Silver,Gold
WORK DONE: ROTD 54.8 m
GEOLOGY: The property is underlain by Upper Devonian limestone, argillaceous limestone and sandstone. This is overlain by Mississippian limy siltstone, limestone and black shale. The strata generally strike north and dips 20 to 30 degrees west. The mineralization consists of copper, silver and gold.
RELATED A.R.: 16448
MINFILE: 082GSW013

Aspen A.R. 17401 REPORT YEAR: 1988, 12 Pages

OPERATOR(S): **Stanfield, R.H.**
AUTHOR(S): Allen, A.R.
MINING DIV: Fort Steele
LOCATION: NTS 082G06W LAT. 49 29 22 LONG. 115 26 32
CLAIM(S): Aspen 11
EXPL. TARGET: Copper
WORK DONE: ROTD 211.1 m 3 hole(s)
GEOLOGY: The northeast corner of Aspen 6A group includes the projected location of the Bull River fault and the contact between the Proterozoic Aldridge Formation and Mississippian and Pennsylvanian formations.
RELATED A.R.: 12997, 15653

Cedar A.R. 17850 REPORT YEAR: 1988, 11 Pages

OPERATOR(S): **Stanfield, R.H.**
AUTHOR(S): Allen, A.R.
MINING DIV: Fort Steele
LOCATION: NTS 082G06W LAT. 49 26 33 LONG. 115 15 46
CLAIM(S): Cedar 8
EXPL. TARGET: Copper,Silver,Gold,Lead
WORK DONE: ROTD 110.5 m 2 hole(s)
GEOLOGY: The claim is underlain by Proterozoic Aldridge Formation argillaceous quartzite and quartzite. A major fault strikes northwest across the Cedar 6 and 8 claims. Precambrian rocks occur to the northeast of the fault and Upper Devonian-Mississippian rocks occur to the southwest in the Rocky Mountain Trench.
RELATED A.R.: 16222
MINFILE: 082GSW054

Elderberry A.R. 17935 REPORT YEAR: 1988, 11 Pages

OPERATOR(S): **Stanfield, R.H.**
AUTHOR(S): Allen, A.R.
MINING DIV: Fort Steele
LOCATION: NTS 082G06W LAT. 49 22 00 LONG. 115 09 00
CLAIM(S): Elderberry 6
EXPL. TARGET: Copper
WORK DONE: ROTD 109.7 m
GEOLOGY: Argillite, quartzite and limestone belonging to the Precambrian Roosville Formation are overlain by limestone, sandstone and conglomerate of the Jubilee and Elko Formations.
RELATED A.R.: 16500

Steeples A.R. 17204 REPORT YEAR: 1988, 11 Pages, 1 Map(s)

OPERATOR(S): **Stanfield, R.H.**
AUTHOR(S): Allen, A.R.
MINING DIV: Fort Steele
LOCATION: NTS 082G11W LAT. 49 32 48 LONG. 115 18 48
CLAIM(S): Steeples 2,Steeples 5,Steeples 10,Steeples 26,Steeples 28,Steeples 31
EXPL. TARGET: Copper,Silver,Gold
WORK DONE: ROTD 817.4 m 8 hole(s) - 1 Map(s); 1:50 000
GEOLOGY: Proterozoic Aldridge, Creston, Kitchener and Siyeh Formation rocks are flanked on the east and west by Devonian and Mississippian formations. Contacts are defined by major faults. Limited exposures of granitic and dioritic intrusives occur.
RELATED A.R.: 15691
MINFILE: 082GNW028

Golden Five A.R. 18027 REPORT YEAR: 1988, 28 Pages

OPERATOR(S): **Sutton, R.**
AUTHOR(S): Morris, R.J.
MINING DIV: Fort Steele
LOCATION: NTS 082G12E, 082G13E LAT. 49 45 00 LONG. 115 31 00
CLAIM(S): BG 1,King Solomon,Queen of Shieba,Big Bend Boy,Honey Comb
EXPL. TARGET: Lead,Copper,Silver,Gold
WORK DONE: LINE 0.4 km
ROCK 9 sample(s);ME
SOIL 42 sample(s);ME
GEOLOGY: Proterozoic, Creston Formation overturned sedimentary rocks are

cut by fracture-filling quartz veins. The quartz carries galena and chalcopyrite with associated(?) silver and gold values.
MINFILE: 082G

Peak A.R. 18193 REPORT YEAR: 1988, 36 Pages, 1 Map(s)

OPERATOR(S): **Cathedral Gold**
AUTHOR(S): Gorc, D.M. Johannessen, D.
MINING DIV: Fort Steele
LOCATION: NTS 082G12E LAT. 49 40 00 LONG. 115 32 30
CLAIM(S): Peak 1-6
EXPL. TARGET: Lead,Zinc,Gold,Silver
WORK DONE: ROCK 13 sample(s);ME
SOIL 511 sample(s);ME - 1 Map(s); 1:2500
GEOLOGY: The area is underlain by the Middle Proterozoic Kitchener Formation, Creston Formation, and Aldridge Formation. Two outcrops of a quartz vein 25 metres apart were observed on the property.
RELATED A.R.: 13106, 14673, 16790
MINFILE: 082G 001, 082G 024, 082G 029, 082G 039

Peak A.R. 16790 REPORT YEAR: 1987, 18 Pages, 1 Map(s)

OPERATOR(S): **Cathedral Gold**
AUTHOR(S): Edmunds, F.R.
MINING DIV: Fort Steele
LOCATION: NTS 082G12E LAT. 49 39 28 LONG. 115 33 04
CLAIM(S): Peak 1-2
EXPL. TARGET: Lead,Zinc,Gold,Silver
WORK DONE: HMIN 23 sample(s);ME - 1 Map(s); 1:50 000
GEOLOGY: The area is underlain by the following; Kitchener Formation (Middle Proterozoic), Creston Formation (Middle Proterozoic), and Aldridge Formation (Middle Proterozoic). Two outcrops of a quartz vein, 25 metres apart, were observed on the property.
RELATED A.R.: 13106, 14673
MINFILE: 082GNW001, 082GNW039

Tackle A.R. 18159 REPORT YEAR: 1988, 17 Pages, 3 Map(s)

OPERATOR(S): **Placer Dome**
AUTHOR(S): Fox, P.E. Kulla, G.K.
MINING DIV: Fort Steele
LOCATION: NTS 082G12E LAT. 49 45 00 LONG. 115 32 00
CLAIM(S): Tackle 1-2
EXPL. TARGET: Gold
WORK DONE: LINE 3.2 km
ROAD 1.3 km
ROCK 159 sample(s);ME - 2 Map(s); 1:5000,1:10 000
SOIL 64 sample(s);ME - 1 Map(s); 1:5000
TREN 130.0 m 10 trench(es)
GEOLOGY: Quartzites, siltstones and argillites of the Purcell Supergroup are cut by several major north trending thrust faults. North trending folds are also evident. The Aldridge Formation of the Purcell Supergroup hosts the Kootenay King zinc, lead, silver and Cadmium mine and Estella zinc, lead and silver mine to the south and north respectively.
RELATED A.R.: 13901

Pine A.R. 16689 REPORT YEAR: 1987, 34 Pages, 3 Map(s)

OPERATOR(S): **Victoria Res.**
AUTHOR(S): Klewchuk, P.
MINING DIV: Fort Steele
LOCATION: NTS 082G12W LAT. 49 38 38 LONG. 115 50 31
CLAIM(S): Pine 1-7
EXPL. TARGET: Multielement
WORK DONE: GEOL 2000.0 ha - 1 Map(s); 1:10 000
MAGG 5.1 km - 1 Map(s); 1:1250
PERD 222.0 m 27 hole(s)
ROCK 157 sample(s);ME - 1 Map(s); 1:1000
TOPO 7140.0 ha
GEOLOGY: The claims are underlain by Proterozoic Aldridge Formation argillite, siltstone and quartzite, Creston Formation chloritic siltstone and argillite, Kitchener Formation silty dolomite, Cambrian Eager Formation shale and siltstone, Cretaceous quartz monzonite and granodiorite. Geochemical results indicate anomalous values of gold, silver, lead, zinc, and copper.

Pine A.R. 18180 REPORT YEAR: 1988, 107 Pages, 6 Map(s)

OPERATOR(S): **Victoria Res.**
AUTHOR(S): Klewchuk, P.
MINING DIV: Fort Steele
LOCATION: NTS 082G12W LAT. 49 37 00 LONG. 115 50 00
CLAIM(S): Pine 1-2,Pine 5-7
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: GEOL 144.0 ha - 3 Map(s); 1:2000
IPOL 13.5 km
MAGG 26.1 km - 2 Map(s); 1:2000
ROCK 30 sample(s);ME
SOIL 276 sample(s);ME - 1 Map(s); 1:2000
GEOLOGY: The property is underlain by Proterozoic to Cambrian fine-grained clastic metasedimentary rocks of the Aldridge, Creston, Kitchener, Eager and possibly Cranbrook Formations. These rocks are intruded by small Cretaceous stocks of quartz monzonite to granodiorite.

Sullivan A.R. 18102 REPORT YEAR: 1988, 30 Pages, 2 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Jackisch, I.
MINING DIV: Fort Steele
LOCATION: NTS 082G12W LAT. 49 41 00 LONG. 115 59 30
CLAIM(S): Kitty,Sheba,Weeks,Trent,Fillin,Hillside,Dephole,Canada,Clark,Stewart,Foam,Thompson,Rodler, Lone Fr.,Spring
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE: EMGR 6.8 km; UT - 1 Map(s); 1:5000
LINE 17.6 km - 1 Map(s); 1:25 000
GEOLOGY: The UTEM survey was conducted over Aldridge Formation strata of siliclastic and argillaceous rocks believed to have been deposited in an intracratonic basin. These rocks host the stratiform Sullivan silver-lead-zinc orebody to the west.

Wait A.R. 17043 REPORT YEAR: 1988, 18 Pages

OPERATOR(S): **Normine Res.**
AUTHOR(S): Klewchuk, P.

FERNIE 082G

MINING DIV: Fort Steele
LOCATION: NTS 082G12W LAT. 49 43 00 LONG. 115 48 00
CLAIM(S): Wait 8
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold
WORK DONE: DIAD 666.0 m 2 hole(s); NQ
SAMP 145 sample(s);CU,PB,ZN,AG,AU,AS
GEOLOGY: The underlying rocks are Precambrian Aldridge Formation metamorphosed fine-grained clastic sediments. Faulting is accompanied by chloritic alteration and quartz veining. Mineralization includes pyrite, pyrrhotite, sphalerite and chalcopyrite.
RELATED A.R.: 16373

Wait A.R. 17142 REPORT YEAR: 1988, 23 Pages

OPERATOR(S): **Normine Res.**
AUTHOR(S): Klewchuk, P.
MINING DIV: Fort Steele
LOCATION: NTS 082G12W LAT. 49 43 11 LONG. 115 48 04
CLAIM(S): Wait 11
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold
WORK DONE: DIAD 1097.3 m 1 hole(s);HQ ,NQ
SAMP 266 sample(s);CU,PB,ZN,AS,AG,AU
GEOLOGY: The claims are underlain by Proterozoic Aldridge Formation metamorphosed fine-grained clastic sedimentary rocks. Extensive faulting is present with chloritic alteration and quartz veining. Minor iron and base metals are present, including pyrite, pyrrhotite, sphalerite, galena and chalcopyrite.
RELATED A.R.: 16373, 17043

Sullivan A.R. 16856 REPORT YEAR: 1987, 14 Pages, 2 Map(s)

OPERATOR(S): **Romero, M. Coffin, E.**
AUTHOR(S): DiSpirito, F. Graham, J.C.
MINING DIV: Fort Steele
LOCATION: NTS 082G13W, 082F16E LAT. 49 47 17 LONG. 115 58 33
CLAIM(S): Bur,Kent,Lex,Bear,Par,Cub,Bet,Tiger,Tali,Oak,Fir,Car,Talionis
WORK DONE: EMAB 71.9 km;VLF - 1 Map(s); 1:10 000
MAGA 71.9 km - 1 Map(s); 1:10 000
GEOLOGY: The area is underlain by gently dipping Proterozoic sedimentary rocks of the Aldridge Formation. The contact between the Middle and Upper Aldridge Formation underlies the Sullivan Mountain Group property.

CANAL FLATS 082J

Gypit A.R. 16887 REPORT YEAR: 1987, 6 Pages

OPERATOR(S): **Domtar**
AUTHOR(S): Blender, D.
MINING DIV: Fort Steele
LOCATION: NTS 082J03W LAT. 50 02 29 LONG. 115 27 53
CLAIM(S): Gypit 2
EXPL. TARGET: Gypsum
WORK DONE: PERD 76.0 m 9 hole(s)
RECL
ROAD 1.0 km
TREN 85.0 m 17 trench(es)
GEOLOGY: Gypsum occurs in the Middle Silurian-Middle Devonian Burnais Formation. The lithology strikes northeast and dips southeast and is banded and laminated and occasionally brecciated with argillaceous gypsum, anhydrite and sometimes limestone in a matrix of black-grey-white gypsum. Extensive faulting, folding and pre- and post-glacial erosion is evident. The deposits are usually small in size (less than 1.8 million tonnes) and overlain by varying thicknesses of glacial till.
MINFILE: 082JSW

Domtar Amos A.R. 16886 REPORT YEAR: 1987, 11 Pages

OPERATOR(S): **Domtar**
AUTHOR(S): Blender, D.
MINING DIV: Fort Steele
LOCATION: NTS 082J04E LAT. 50 05 50 LONG. 115 31 15
CLAIM(S): Amos 3,Cath,Four-J
EXPL. TARGET: Gypsum
WORK DONE: DIAD 419.5 m 13 hole(s);NQ
PERD 9.1 m 1 hole(s)
RECL
GEOLOGY: Gypsum occurs in the Middle Silurian-Middle Devonian Burnais Formation. The lithology strikes northeast and dips southeast and is banded and laminated and occasionally brecciated with argillaceous gypsum, anhydrite and sometimes limestone in a matrix of black-grey-white gypsum. Extensive faulting, folding and pre- and post-glacial erosion is evident. Deposits are usually small in size (less than 1.8 million tonnes) and overlain by varying thicknesses of glacial till.
MINFILE: 082JSW

Laura A.R. 17159 REPORT YEAR: 1988, 8 Pages

OPERATOR(S): **Domtar Gypsum**
AUTHOR(S): Blender, D.
MINING DIV: Golden
LOCATION: NTS 082J04E LAT. 50 13 26 LONG. 115 41 25
CLAIM(S): Laura 3
EXPL. TARGET: Gypsum
WORK DONE: DIAD 53.3 m 2 hole(s);HQ
RECL 0.1 ha
GEOLOGY: Gypsum occurs in the Burnais Formation of Middle Silurian-Middle Devonian age. The area is covered with a considerable thickness of glacial till. Outcrops are scarce and usually occur in the steep valleys formed by creeks.

Shag A.R. 17814 REPORT YEAR: 1988, 27 Pages, 4 Map(s)

OPERATOR(S): **Graf, C.W.**
AUTHOR(S): Hendrickson, G.A.
MINING DIV: Golden
LOCATION: NTS 082J11W, 082J12E LAT. 50 38 20 LONG. 115 30 40
CLAIM(S): Shag,Shag 3-4
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE: IPOL 12.0 km - 4 Map(s);
LINE 12.0 km
GEOLOGY: A number of small lead-zinc showings occur in a thick, massive to well bedded limestone-dolostone unit of the Middle Cambrian Cathedral Formation. Massive sphalerite layers can be traced for 600

metres along strike.
RELATED A.R.: 07036, 07382, 08091, 09678, 10143, 11170
MINFILE: 082JNW002

Albert River A.R. 17822 REPORT YEAR: 1988, 37 Pages

OPERATOR(S): **Dia Met Min.**
AUTHOR(S): Fipke, C.E.
MINING DIV: Golden
LOCATION: NTS 082J12E LAT. 50 38 00 LONG. 115 35 00
CLAIM(S): Ash,Barbi,Ding Bat,Chester,Burb,Zirkon,Rachel
EXPL. TARGET: Gold,Tungsten,Rare Earths
WORK DONE: FOTO 2200.0 ha
HMIN 10 sample(s);ME
GEOLOGY: The claims are underlain by limestone, argillaceous limestone, calcareous argillite and shale of the Middle Cambrian Chancellor Group. The sequence has been isoclinally folded about northwest trending axes with steep west dipping axial planes. Alteration halos suggest nearby intrusions and mineralization.
RELATED A.R.: 16278

Rok A.R. 17538 REPORT YEAR: 1988, 176 Pages, 1 Map(s)

OPERATOR(S): **Baymag Mines**
AUTHOR(S): McCosh, F.D. Schultz, B.G.
MINING DIV: Golden
LOCATION: NTS 082J13E LAT. 50 47 13 LONG. 115 40 35
CLAIM(S): Mining Lease 31,Rok 17,Rok 19
EXPL. TARGET: Magnesium
WORK DONE: DIAD 2706.7 m 34 hole(s);BQ - 1 Map(s); 1:500
GEOLOGY: The Mt. Brusilof deposit is reputed to be the largest and purest coarse crystalline magnesite deposit known in the western world. Magnesite occurs as a white to greyish, very coarse-grained crystalline rock which is quite resistant and weathers to a light buff colour. Magnesite is the dominant mineral and the amounts of dolomite and calcite vary locally.
MINFILE: 082JNW001

LARDEAU 082K

Echo A.R. 16925 REPORT YEAR: 1988, 8 Pages, 1 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Anderson, D.W.
MINING DIV: Golden
LOCATION: NTS 082K01E LAT. 50 02 30 LONG. 116 14 00
CLAIM(S): Echo 3-5
EXPL. TARGET: Lead,Zinc,Silver,Gold
WORK DONE: GEOL 800.0 ha - 1 Map(s); 1:10 000
GEOLOGY: The Echo 1-6 claims are underlain by Helikian age Middle Aldridge sediments. The sediments are predominantly quartzitic wacke turbidites with lessor inter-turbidite argillaceous material. Moyie gabbro sills and dykes intrude this package. Several sets of narrow quartz veins contain weak pyrite, pyrrhotite, and arsenopyrite with minor galena and sphalerite.

Echo A.R. 18169 REPORT YEAR: 1988, 31 Pages, 1 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Price, M.A.
MINING DIV: Golden
LOCATION: NTS 082K01W LAT. 50 01 00 LONG. 116 15 25
CLAIM(S): Echo 1-4,Echo 7-8,Echo 11
EXPL. TARGET: Lead,Zinc
WORK DONE: EMGR 27.0 km;UTEM - 1 Map(s); 1:20 000
GEOLOGY: The claims are underlain by Helikian Middle Aldridge sediments. The sediments are predominantly quartzitic wacke turbidites with lesser interturbidite argillaceous material. Moyie gabbro sills and dykes intrude this package. Several sets of narrow quartz veins contain weak pyrite, pyrrhotite and arsenopyrite with minor galena and sphalerite.

Alamo (Creek Side) A.R. 17225 REPORT YEAR: 1988, 31 Pages, 8 Map(s)

OPERATOR(S): **Goldsmith, L.B.**
AUTHOR(S): Kallock, P. Goldsmith, L.B.
MINING DIV: Slocan
LOCATION: NTS 082K03E, 082K03W LAT. 50 01 30 LONG. 117 16 24
CLAIM(S): Alamo,Alamo 2,Creek Side
WORK DONE: GEOL 225.0 ha - 2 Map(s); 1:5000,1:1250
ROAD 1.5 km
ROCK 18 sample(s);AG,PB,ZN
SOIL 96 sample(s);AG,PB,ZN - 6 Map(s); 1:5000,1:1250
TREN 30.0 m 3 trench(es)
GEOLOGY: Jurassic-Triassic Slocan Group clastic sediments are intruded by silicic to intermediate dykes. Productive fissure-lode systems trend northeasterly and host silver-lead-zinc mineralization. Soil geochemical anomalies on the Creek Side and Alamo claims require detailed exploration.
RELATED A.R.: 15525
MINFILE: 082KSW

Lynn A.R. 18144 REPORT YEAR: 1988, 52 Pages, 12 Map(s)

OPERATOR(S): **Goldsmith, L.B.**
AUTHOR(S): Goldsmith, L.B. Kallock, P.
MINING DIV: Slocan
LOCATION: NTS 082K03E LAT. 50 01 30 LONG. 117 15 00
CLAIM(S): Creek Side,Smoke 3
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE: SOIL 158 sample(s);PB,ZN,AG - 12 Map(s); 1:1250,1:5000
GEOLOGY: Argillite, shale and quartzite of the Upper Triassic to Lower Jurassic Slocan Group are cut by northeast trending fissure (lode) zones which contain silver-lead-zinc mineralization throughout the mining camp.

Northern Belle A.R. 18016 REPORT YEAR: 1988, 32 Pages, 5 Map(s)

OPERATOR(S): **Goldsmith, L.B.**
AUTHOR(S): Kallock, P.
MINING DIV: Slocan
LOCATION: NTS 082K03E LAT. 50 00 12 LONG. 117 09 42
CLAIM(S): Northern Belle,Judith Ann
EXPL. TARGET: Silver,Lead,Zinc
WORK DONE: DIAD 367.3 m 6 hole(s);BQ - 5 Map(s); 1:200,1:1000
SAMP 16 sample(s);PB,ZN,AG,AU

GEOLOGY: Upper Triassic and Lower Jurassic Slocan Group argillites are cut by a northeast trending fissure or lode zone which contains silver-lead-zinc mineralization.
MINFILE: 082KSW015

Whitewater A.R. 16758 REPORT YEAR: 1987

OPERATOR(S): **Abermin**
AUTHOR(S): McArthur, G.F.
MINING DIV: Slocan
LOCATION: NTS 082K03E LAT. 50 03 54 LONG. 117 06 52
CLAIM(S): Lyle 1-3,PD,PT,Tetra,Howard,Defender,Revenue,Garnett,Emerald Fr.,MC 346,Whitewater 1-3, Mayflower,Robin,Wild,Swan
WORK DONE:
EMGR 54.0 km;VLF
GEOL 4000.0 ha
IPOL 2.5 km
LINE 71.0 km
MAGG 54.0 km
PETR 19 sample(s)
RECL
ROAD 7.0 km
ROCK 188 sample(s);AU,AG,CU,PB,ZN
SAMP 135 sample(s);AU,AG,CU,PB,ZN
SOIL 206 sample(s);AU,AG,CU,PB,ZN
TOPO 4500.0 ha
GEOLOGY: Triassic Kaslo Group greenstones and ultramafic rocks near the Whitewater Fault are cut by a quartz-carbonate shear zone containing sulphide veins. The sulphide veins consist of pyrite, chalcopyrite, galena and sphalerite. The regional structural trend is 132 degrees.
RELATED A.R.: 04126, 05401, 07835, 08529, 09060

Whitewater (Highland Surprise) A.R. 17158 REPORT YEAR: 1987, 237 Pages, 20 Map(s)

OPERATOR(S): **Abermin**
AUTHOR(S): McArthur, G.F.
MINING DIV: Slocan
LOCATION: NTS 082K03E LAT. 50 04 09 LONG. 117 07 29
CLAIM(S): Whitewater 1-3,Robin,Wild Swan,Grizzly Gold,Grizzly Gold 1,Mayflower,Pluto,Plato,Lyle 1-3,PD,PT Tetra,Howard,Defender,Revenue
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE:
EMGR 54.0 km;VLF - 8 Map(s); 1:5000,1:2500
GEOL 2500.0 ha - 3 Map(s); 1:5000,1:2500
IPOL 2.5 km - 1 Map(s); 1:1250
LINE 71.0 km
MAGG 54.0 km - 5 Map(s); 1:5000,1:2500
PETR 19 sample(s)
RECL
ROAD 7.0 km
ROCK 365 sample(s);AU,AG,CU,PB,ZN - 2 Map(s); 1:5000
SOIL 251 sample(s);AU,AG,CU,PB,ZN - 1 Map(s); 1:2500
GEOLOGY: Triassic Kaslo Group greenstones and ultramafic rocks near the Whitewater Fault are cut by a quartz-carbonate shear zone containing sulphide veins consisting of pyrite, chalcopyrite, galena and sphalerite. The regional structural trend is 132 degrees.
MINFILE: 082KSW032, 082KSW037, 082KSW058, 082KSW076, 082KSW077, 082KSW078

Alamo A.R. 17748 REPORT YEAR: 1988, 23 Pages, 5 Map(s)

OPERATOR(S): **Goldsmith, L.B.**
AUTHOR(S): Goldsmith, L.B. Kallock, P.
MINING DIV: Slocan
LOCATION: NTS 082K03W LAT. 50 01 21 LONG. 117 15 59
CLAIM(S): Alamo
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE:
GEOL 15.0 ha - 2 Map(s); 1:2000,1:1000
ROAD 1.2 km - 1 Map(s); 1:5000
ROCK 10 sample(s);PB,ZN,AG
SOIL 45 sample(s);PB,ZN,AG - 2 Map(s); 1:1000
TREN 800.0 m 3 trench(es)
GEOLOGY: The claims are underlain by clastic sediments of the Jurassic-Triassic Slocan Group. Bedding and foliation strike northwesterly with variable dips. North trending fault structures have localized mineralization with up to 2750 ppm zinc. Soil samples contain up to 6.4 ppm silver in the areas of high zinc values.
RELATED A.R.: 14797

Lynn A.R. 17862 REPORT YEAR: 1988, 23 Pages, 5 Map(s)

OPERATOR(S): **Goldsmith, L.B.**
AUTHOR(S): Goldsmith, L.B. Kallock, P.
MINING DIV: Slocan
LOCATION: NTS 082K03W LAT. 50 01 30 LONG. 117 16 00
CLAIM(S): Lynn,Alamo,Creek Side,Ouray,Smoke
WORK DONE:
GEOL 1050.0 ha - 3 Map(s); 1:1000,1:5000
ROCK 10 sample(s);PB,ZN,AG
SOIL 45 sample(s);PB,ZN,AG - 2 Map(s); 1:1000
TREN 440.0 m 3 trench(es)
GEOLOGY: The property is underlain by clastic sediments of the Triassic-Jurassic Slocan Group. Bedding and foliation strike northwest with variable dips which are predominantly southwest. Granitic dykes and small stocks intrude the sediments.
RELATED A.R.: 14797, 17748

Brick 1 A.R. 17848 REPORT YEAR: 1988, 34 Pages

OPERATOR(S): **Meadow Mountain Res.**
AUTHOR(S): Ainsworth, B.
MINING DIV: Slocan
LOCATION: NTS 082K04E LAT. 50 02 00 LONG. 117 38 00
CLAIM(S): Brick 1
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: SOIL 191 sample(s);AU,AG,PB,ZN,AS
GEOLOGY: Metavolcanic and metasedimentary rocks of the Slocan and Milford groups are intruded by quartz diorite of the Meadow Mountain and Ruby Range stocks, and nearby the claims by quartz monzonite by the Lower Coribou Creek Pluton and the Halifax Creek stock. The geochemical results showed no strong anomalies in any of the elements analysed.

Brick 3 A.R. 17847 REPORT YEAR: 1988, 32 Pages

OPERATOR(S): **Meadow Mountain Res.**
AUTHOR(S): Ainsworth, B.
MINING DIV: Slocan
LOCATION: NTS 082K04E LAT. 50 03 30 LONG. 117 38 00
CLAIM(S): Brick 3
EXPL. TARGET: Gold,Silver,Lead,Zinc

WORK DONE: SOIL 181 sample(s);AU,AS,AG,PB,ZN
GEOLOGY: Metavolcanic and metasedimentary rocks of the Slocan and Milford groups are intruded by quartz diorite of the Meadow Mountain and Ruby Range stocks, and nearby the claims by quartz monzonite of the Lower Caribou Creek Pluton and the Halifax Creek Stock. No significant geochemical values were obtained.

Eureka A.R. 16967 REPORT YEAR: 1988, 61 Pages

OPERATOR(S): **Meadow Mountain Res.**
AUTHOR(S): Ainsworth, B.
MINING DIV: Slocan
LOCATION: NTS 082K04E LAT. 50 02 30 LONG. 117 41 00
CLAIM(S): Eureka,Mineral Lease 385
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: EMGR 6.0 km; VLF
MAGG 6.0 km
SOIL 265 sample(s);PB,ZN,AG,AS,AU, W
GEOLOGY: Metasedimentary and metavolcanic rocks of Mesozoic Slocan Group are intruded by quartz monzonite of the Halifax stock. Narrow quartz veins with galena, sphalerite, silver and gold values occur in the metasedimentary rocks.
MINFILE: 082KSW054

Kusp A.R. 17717 REPORT YEAR: 1988, 31 Pages, 5 Map(s)

OPERATOR(S): **Woodcock, J.R.**
AUTHOR(S): Woodcock, J.R.
MINING DIV: Slocan
LOCATION: NTS 082K04E LAT. 50 07 34 LONG. 117 36 40
CLAIM(S): Kusp 1,Nak 5-8
EXPL. TARGET: Silver,Lead,Zinc
WORK DONE: EMGR 7.2 km;VLF - 1 Map(s); 1:2500
SOIL 340 sample(s);CU,MN,AG,AS,PB,ZN - 4 Map(s); 1:2500
GEOLOGY: The claims are underlain by pyroclastic rocks of the Jurassic-Triassic Slocan Group. Disseminated stratiform sulphides occur in a carbonate-rich tuff. The sulphides are pyrite, sphalerite, galena and silver. A mineralized bed lies on a north-overturned limb of an anticline with a strike of 100 degrees and dips 60-70 degrees southwest.
RELATED A.R.: 06845, 07054
MINFILE: 082KSW161

Cam A.R. 17112 REPORT YEAR: 1987, 45 Pages

OPERATOR(S): **Meadow Mountain Res.**
AUTHOR(S): Ainsworth, B.
MINING DIV: Slocan
LOCATION: NTS 082K04W LAT. 50 05 00 LONG. 117 48 00
CLAIM(S): Mineral Lease 197
EXPL. TARGET: Lead,Zinc,Silver,Gold
WORK DONE: EMGR 8.2 km; VLF
MAGG 8.2 km
SOIL 376 sample(s);AG,AU,AS,PB,ZN,WO
GEOLOGY: Metasedimentary and metavolcanic rocks of Triassic Slocan Group are intruded by biotite hornblende diorite stocks of Jurassic age. A quartz vein cutting diorite contains minor amounts of galena and sphalerite.
MINFILE: 082KSW067

Ping Pong A.R. 17979 REPORT YEAR: 1988, 34 Pages, 5 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Gill, D.G.
MINING DIV: Slocan
LOCATION: NTS 082K05W LAT. 50 29 50 LONG. 117 59 00
CLAIM(S): Ping Pong 1-2
EXPL. TARGET: Zinc
WORK DONE: GEOL 53.0 ha - 1 Map(s); 1:2500
LINE 6.9 km
ROCK 22 sample(s);ME
SILT 8 sample(s);ME
SOIL 237 sample(s);ME - 4 Map(s); 1:2500
GEOLOGY: This property lies within a Paleozoic heterogenous assemblage of metasedimentary rocks in the southern part of the Thor-Odin gneiss dome along the eastern margin of the Shuswap Metamorphic Complex. Tightly folded, stratiform zinc mineralization occurs in calcareous quartzites, schists and gneisses similar to the geology at Cominco's Big ledge deposit located 14 kilometres to the west.
MINFILE: 082KSW

Amber A.R. 18136 REPORT YEAR: 1988, 75 Pages, 4 Map(s)

OPERATOR(S): **Ambergate Ex.**
AUTHOR(S): Spearing, C.G. Ostler, J.
MINING DIV: Slocan
LOCATION: NTS 082K06E LAT. 50 18 00 LONG. 117 10 00
CLAIM(S): Amber 1-4,Juno,North Star
EXPL. TARGET: Gold,Silver,Antimony,Lead,Zinc
WORK DONE: GEOL 950.0 ha - 2 Map(s); 1:10 000,1:500
LINE 6.4 km
ROCK 20 sample(s);AU,AG,CU,PB,ZN,SB,AS
SOIL 158 sample(s);AU,AG,PB,ZN,CU - 1 Map(s); 1:5000
TRAL 3.8 km - 1 Map(s); 1:5000
TREN 321.0 m 10 trench(es)
GEOLOGY: The Amber property is underlain by the eugeosynclinal greywackes, slates and carbonates of the Palaeozoic age Broadview Formation. Late during the second phase of deformation, mineralized veins were emplaced in incompetent sediments in footwall rocks near thrust faults. Between the Amber Thrust and the Mobbs Fault are rocks containing the Upper Juno, Snowstorm, Pine Tree, Silver Sparrow, White Eagle and Lakeview showings - areas which contain quartz veins mineralized with auriferous pyrite, argentiferous galena and sphalerite. West of the Amber Thrust are the West Ridge and North Star showings - areas that contain veins mineralized with galena, stibnite, tetrahedrite and sphalerite.
RELATED A.R.: 16433
MINFILE: 082KSW125, 082KSW126, 082KSW127, 082KSW

Comstock A.R. 18149 REPORT YEAR: 1988, 48 Pages, 1 Map(s)

OPERATOR(S): **Ambergate Ex.**
AUTHOR(S): Ostler, J.
MINING DIV: Slocan
LOCATION: NTS 082K06E LAT. 50 19 30 LONG. 117 09 00
CLAIM(S): Comstock 2
EXPL. TARGET: Silver,Lead,Zinc

WORK DONE:	GEOL 155.0 ha - 1 Map(s); 1:10 000
GEOLOGY:	The northeastern part of the Comstock Property is underlain by andesitic volcanics of the Palaeozoic Index Formation. The southwestern part is underlain by slates, greywackes, carbonates and volcanogenic sediments of the Broadview Formation. These formations formed a conformable eugeusynclinal sequence. Their boundary contact was originally gradational but is now a fault. The property contains the lower and upper Comstock workings. In the lower workings a 2 metre thick quartz vien is tested by 2 adits and trenches. This vein runs up to 19.3 ounces per ton silver and 30 per cent lead. At the upper workings at least two veins were explored by a series of trenches. The upper veins assay up to 35 ounces per ton silver.
RELATED A.R.:	16480
MINFILE:	082KSW127

Duchess A.R. 16878 REPORT YEAR: 1987, 22 Pages

OPERATOR(S):	**Even Res.**
AUTHOR(S):	Adamec, J.D.
MINING DIV:	Golden
LOCATION:	NTS 082K08W LAT. 50 15 48 LONG. 116 22 34
CLAIM(S):	Duchess
EXPL. TARGET:	Silver,Lead,Copper
WORK DONE:	EMGR 0.9 km;VLF MAGG 0.9 km ROCK 3 sample(s);AU,AG,WO,PB,ZN,SB,CU,AS
GEOLOGY:	The property is underlain by Proterozoic Kitchener and Siyeh Formation limy, thin-bedded argillites which strike north and dip moderately to the east. Mineralization exposed in old workings is strictly in the form of chalcopyrite and pyrite found in veinlets within quartz gangue.
MINFILE:	082KSE028

Lucky Boy A.R. 17008 REPORT YEAR: 1987, 31 Pages, 1 Map(s)

OPERATOR(S):	**Rodgers, G.M.**
AUTHOR(S):	Rodgers, G.M.
MINING DIV:	Golden
LOCATION:	NTS 082K08W LAT. 50 20 30 LONG. 116 21 30
CLAIM(S):	Lucky Boy,Grey Eagle,Blackbird,Delight,Iffy 1-2
EXPL. TARGET:	Gold,Silver,Copper,Lead,Zinc,Cadmium
WORK DONE:	GEOL 50.0 ha - 1 Map(s); 1:1600 SAMP 4 sample(s);AU,AG SOIL 103 sample(s);CU,PB,ZN,AG UNDV 15.0 m 2
GEOLOGY:	The claims lie within the Helikian lower Dutch Creek Formation. Rock types include buff dolomite and grey-black argillite/schist. The competency contrast between the dolomite and the schist has localized a vein fault striking north and dipping 70 degrees west. A small anticline-syncline pair also has affected the location of the vein fault. Twenty tonnes of ore have been removed from a vein 0.3 metres wide and 5 metres long, which assayed 1244 grams of silver per tonne, 2.4 grams of gold per tonne, and high values in copper, zinc and lead.
MINFILE:	082KSE035

Snow Cat A.R. 16811 REPORT YEAR: 1987, 7 Pages, 1 Map(s)

OPERATOR(S):	**Pochylko, W.**
AUTHOR(S):	Dundas, T.
MINING DIV:	Golden
LOCATION:	NTS 082K08W, 082K09W LAT. 50 28 25 LONG. 116 21 23
CLAIM(S):	Snow Cat 1-7
EXPL. TARGET:	Lead,Silver
WORK DONE:	SPOT 6.3 km - 1 Map(s); 1:5000
GEOLOGY:	The claims were staked to cover strike extensions of vein-type lead-silver-zinc mineralization from nearby workings.

Silver Thread A.R. 16808 REPORT YEAR: 1987, 8 Pages

OPERATOR(S):	**Pochylko, W.**
AUTHOR(S):	Dundas, T.
MINING DIV:	Golden
LOCATION:	NTS 082K09W LAT. 50 31 08 LONG. 116 20 18
CLAIM(S):	Snow Cat 8-9
WORK DONE:	SPOT 3.2 km
GEOLOGY:	The claims were staked to cover possible strike extensions of vein-type lead-silver-zinc mineralization in nearby workings. A self-potential survey has not located any significant anomalies.

Denny A.R. 17651 REPORT YEAR: 1988, 30 Pages, 4 Map(s)

OPERATOR(S):	**Golden Range Res.**
AUTHOR(S):	Hlava, M.
MINING DIV:	Revelstoke
LOCATION:	NTS 082K11W, 082K14W LAT. 50 46 20 LONG. 117 24 28
CLAIM(S):	Black Warrior 1,Ellsmere 1,Galena,Horne,Blackburn,Ellsmere,Morgan,Silver Leaf 1, Edna No.2 (L.5698),Celtic,Canadian Girl (L.4705)
EXPL. TARGET:	Lead,Zinc,Silver,Copper,Gold
WORK DONE:	EMAB 150.0 km;VLF - 1 Map(s); 1:10 000 MAGA 150.0 km - 3 Map(s); 1:10 000
GEOLOGY:	The claims appear to be underlain by folded rocks of the Cambrian-Devonian Lardeau Group and Cambrian Hamill Group including the Marsh Adams and Mohican Formations.
RELATED A.R.:	16643
MINFILE:	082KNW081, 082KNW160, 082KNW166, 082KNW188, 082KNW204

Ophir-Lade A.R. 18090 REPORT YEAR: 1988, 31 Pages, 2 Map(s)

OPERATOR(S):	**Stewart, S.**
AUTHOR(S):	Santos, P.J.
MINING DIV:	Revelstoke
LOCATION:	NTS 082K11W LAT. 50 44 00 LONG. 117 20 00
CLAIM(S):	Sherrin 1,Fred 1
EXPL. TARGET:	Gold,Silver
WORK DONE:	GEOL 150.0 ha - 2 Map(s); 1:1250 SAMP 23 sample(s);AU,AG
GEOLOGY:	Gold and silver-bearing pyritic quartz occur as steeply dipping veins and breccia zones cutting phyllites, schists, and argillite of the Cambrian Index Formation.
MINFILE:	082KNW032, 082KNW033

Ottawa A.R. 18095 REPORT YEAR: 1988, 39 Pages, 3 Map(s)

OPERATOR(S):	**Loumic Res.**
AUTHOR(S):	Greene, A.S. Von Einsiedel, C.A.

MINING DIV: Revelstoke
LOCATION: NTS 082K11W LAT. 50 36 00 LONG. 117 18 30
CLAIM(S): Ottawa 1-2,Haskins
EXPL. TARGET: Silver,Gold,Lead,Zinc,Copper
WORK DONE: EMAB 66.0 km - 1 Map(s); 1:10 000
GEOL 150.0 ha - 1 Map(s); 1:10 000
MAGA 66.0 km - 1 Map(s); 1:10 000
ROAD 7.0 km
ROCK 6 sample(s);AU,AG,CU,PB,ZN
GEOLOGY: The property is within the "Central" or "Cambourne" mineral belt which hosts most of the well known lead-zinc-silver (gold) occurrences in this area. Rocks within the project area comprise complexly folded metasediments and metavolcanics belonging to the Lardeau Group. The Haskins prospect showed massive sulphides in quartz gangue, localized along a northwest trending fault. The fault structure has been traced across the Haskins claim and across the southeastern corner of the Ottawa 2 claim.
MINFILE: 082KNW104

Silver Basin A.R. 17446 REPORT YEAR: 1988, 60 Pages, 6 Map(s)

OPERATOR(S): **Courageous Ex.**
AUTHOR(S): Chisholm, R.E.
MINING DIV: Revelstoke
LOCATION: NTS 082K11W LAT. 50 38 00 LONG. 117 20 00
CLAIM(S): Triune 1-2,Helco 1,Silver Basin,Morning Star
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: EMGR 9.1 km - 1 Map(s); 1:1000
FOTO 745.9 ha - 1 Map(s);
GEOL 400.0 ha - 1 Map(s); 1:10 000,1:1000
LINE 9.1 km
MAGG 9.1 km - 1 Map(s); 1:1000
PROS 400.0 ha
ROAD 1.2 km
ROCK 137 sample(s);AU,AG,CU,PB,ZN - 1 Map(s); 1:1000
SOIL 221 sample(s);AU,AG,CU,PB,ZN - 1 Map(s); 1:000
GEOLOGY: Lower Cambrian to Middle Devonian Lardeau Group argillites and limestones are intruded by Jurassic dioritic sill of the Kuskanax Batholith. Exploration targets are quartz siderite veins in carbonatized halos adjacent to diorites. Mineralization consists of gold, argentiferous galena, sphalerite and chalcopyrite.
RELATED A.R.: 07324, 09037
MINFILE: 082KNW098

Winslow A.R. 17227 REPORT YEAR: 1987, 43 Pages, 7 Map(s)

OPERATOR(S): **Winslow Gold**
AUTHOR(S): Chisholm, R.E.
MINING DIV: Revelstoke
LOCATION: NTS 082K11W LAT. 50 38 00 LONG. 117 23 00
CLAIM(S): Winslow (L.8680),Rit 1-2
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: DIAD 479.5 m 7 hole(s);BQ - 7 Map(s); 1:250
ROAD 1.4 km
SAMP 64 sample(s);AU
GEOLOGY: Cambrian-Devonian Lardeau Group argillites are cut by a north-northwest trending shear zone. The zone hosts steeply northeast dipping quartz-siderite veins approximately 5 metres thick. Gold mineralization occurs in pyritic clots and stringers with trace sphalerite and chalcocite.
RELATED A.R.: 08642, 12310
MINFILE: 082KNW025

AB A.R. 17522 REPORT YEAR: 1988, 11 Pages, 1 Map(s)

OPERATOR(S): **Williams Creek Gold Quartz**
AUTHOR(S): Leimanis, E.
MINING DIV: Revelstoke
LOCATION: NTS 082K13E LAT. 50 53 00 LONG. 117 41 00
CLAIM(S): A 1
EXPL. TARGET: Gold
WORK DONE: PROS 375.0 ha - 1 Map(s); 1:4000
ROCK 8 sample(s);AU,AG
GEOLOGY: Phyllites and quartz veins are exposed in logging road cuts. Quartz samples assayed up to 3.57 grams of gold per tonne.

Adrienne A.R. 16934 REPORT YEAR: 1988, 20 Pages, 1 Map(s)

OPERATOR(S): **Kosmynka, D.P.**
AUTHOR(S): Kosmynka, D.P.
MINING DIV: Revelstoke
LOCATION: NTS 082K13E LAT. 50 53 20 LONG. 117 39 46
CLAIM(S): Adrienne 1-2,Sandi 2
EXPL. TARGET: Lead,Zinc
WORK DONE: ROCK 9 sample(s);ME
SOIL 76 sample(s);ME - 1 Map(s); 1:2500
GEOLOGY: The claims are underlain by Cambrian-Devonian Lardeau Group grey and light green phyllite, minor phyllitic limestone and quartz grit.

Ed A.R. 16791 REPORT YEAR: 1987, 16 Pages, 1 Map(s)

OPERATOR(S): **K-2 Res.**
AUTHOR(S): Gale, R.E.
MINING DIV: Revelstoke
LOCATION: NTS 082K13E LAT. 50 52 41 LONG. 117 42 28
CLAIM(S): Ed 1
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 128.0 ha - 1 Map(s); 1:12 500
ROCK 5 sample(s);ME
SILT 3 sample(s);ME
GEOLOGY: Cambrian-Devonian or older grey phyllitic grits of the Broadview Formation are believed to be cut by a northerly trending fault zone which could be favourable for gold-silver mineralization of the type found on the Teddy Glacier and Windflower properties.

Gap A.R. 16859 REPORT YEAR: 1988, 24 Pages, 1 Map(s)

OPERATOR(S): **Granges Ex.**
AUTHOR(S): Zbitnoff, G.W.
MINING DIV: Revelstoke
LOCATION: NTS 082K13E LAT. 50 46 11 LONG. 117 38 00
CLAIM(S): Gap,Gap I
EXPL. TARGET: Gold
WORK DONE: LINE 8.1 km
SOIL 254 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: The claims are underlain by metamorphic rocks of the Cambrian-

Devonian Lardeau Group which also includes the Broadview Formation.

Goldfinch/Independence A.R. 17929 REPORT YEAR: 1988, 742 Pages, 4 Map(s)

OPERATOR(S): **Granges Ex. Windflower Min.**
AUTHOR(S): Zbitnoff, G.W.
MINING DIV: Revelstoke
LOCATION: NTS 082K13E LAT. 50 49 00 LONG. 117 39 00
CLAIM(S): Dorothy,Independence,Phyllis,Academy 1-4,Doe,Vik,Lost Cup,Nina

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Lexington Creek A.R. 17978 REPORT YEAR: 1988, 68 Pages, 6 Map(s)

OPERATOR(S): **Cons. Trout Lake Mines**
AUTHOR(S): Greene, A.S.
MINING DIV: Revelstoke
LOCATION: NTS 082K13E LAT. 50 49 00 LONG. 117 33 00
CLAIM(S): Silver Bow,Royal,Ohio,Hunter and Trapper,Back Belt 1-3,Athens 1-2,Western Star,Last Chance, St. Kew
EXPL. TARGET: Lead,Zinc,Silver,Copper
WORK DONE: EMAB 165.0 km - 2 Map(s); 1:10 000
GEOL 3200.0 ha - 1 Map(s); 1:10 000
MAGA 165.0 km - 2 Map(s); 1:10 000
ROCK 50 sample(s);AU,AG,PB,ZN
SOIL 176 sample(s);CU,AG,PB,ZN - 1 Map(s); 1:2500
GEOLOGY: Lower Paleozoic Lardeau Group rocks are mineralized with intensely deformed, stratiform-type deposits of siderite and quartz with pyrite, galena and sphalerite along steeply dippinng, limestone-chlorite schist contacts. Widely spaced sampling of these zones across widths of between 1 and 3 metres returned grades ranging from trace to 2.4 grams of gold per tonne; 15.5 to 372 grams of silver per tonne, and combined metal content of between 1 and 25 per cent.
RELATED A.R.: 15372
MINFILE: 082KNW074, 082KNW124, 082KNW129, 082KNW137, 082KNW148, 082KNW163, 082KNW164, 082KNW197, 082KNW202

Pool Creek A.R. 16724 REPORT YEAR: 1987

OPERATOR(S): **K-2 Res.**
AUTHOR(S): Gale, R.E.
MINING DIV: Revelstoke
LOCATION: NTS 082K13E LAT. 50 46 42 LONG. 117 36 41
CLAIM(S): Spider
WORK DONE: DIAD 754.9 m 9 hole(s)
SAMP 90 sample(s);ME
UNDD 860.1 m 9 hole(s)
GEOLOGY: The host rock for the No. 4 vein and other veins on the claims is a greenstone volcanic rock of the Early Paleozoic Jowett Formation.
RELATED A.R.: 05690, 06021, 08491, 09146, 09814, 10844, 11177, 11756

Revelstoke A.R. 17436 REPORT YEAR: 1988, 19 Pages, 2 Map(s)

OPERATOR(S): **Skylark Res.**
AUTHOR(S): McAtee, C.L.
MINING DIV: Revelstoke
LOCATION: NTS 082K13E, 082K13W LAT. 50 54 00 LONG. 117 45 00
CLAIM(S): Kin 1-2,Ice 1-3,Venture 1-2,Tril 2,Lix 1-3
EXPL. TARGET: Gold
WORK DONE: GEOL 5025.0 ha - 2 Map(s); 1:10 000
ROCK 32 sample(s);ME
GEOLOGY: Interbedded limestones, phyllites, argillites, quartzites and schists of the lower to mid-Paleozoic Lardeau Group are cut by quartz veins up to 2.5 metres wide. The veins generally strike northeast to east-west and dip vertically. Most of the veins are barren of mineralization, but several samples contain anomalous values of gold, silver, copper, lead and zinc.
MINFILE: 082KNW216

Sandi A.R. 17911 REPORT YEAR: 1988, 22 Pages

OPERATOR(S): **Kosmynka, D.P.**
AUTHOR(S): Kosmynka, D.P.
MINING DIV: Revelstoke
LOCATION: NTS 082K13E LAT. 50 51 30 LONG. 117 40 30
CLAIM(S): Sandi 3
EXPL. TARGET: Lead,Zinc,Gold,Silver
WORK DONE: PROS 300.0 ha
GEOLOGY: The property is underlain by Lower Cambrian to Middle Devonian or older, Lardeau Group and Jowett Formation consisting of green phyllite, limy green phyllite and greenstone.
RELATED A.R.: 17809

Sandi A.R. 17809 REPORT YEAR: 1988, 22 Pages

OPERATOR(S): **Kosmynka, D.P.**
AUTHOR(S): Kosmynka, D.P.
MINING DIV: Revelstoke
LOCATION: NTS 082K13E LAT. 50 52 00 LONG. 117 41 00
CLAIM(S): Sandi 1
EXPL. TARGET: Lead,Zinc,Silver,Gold
WORK DONE: PROS 50.0 ha;PB,ZN,AG,AU
GEOLOGY: The property is underlain by Cambrian to Devonian or older rocks belonging to the Lardeau Group. The rocks consist of phyllite, greenstone and dark grey to black siliceous phyllite.

Windflower A.R. 16753 REPORT YEAR: 1987

OPERATOR(S): **Granges Ex.**
AUTHOR(S): Zbitnoff, G.W.
MINING DIV: Revelstoke
LOCATION: NTS 082K13E LAT. 50 49 30 LONG. 117 39 38
CLAIM(S): Vik,Doe,Academy 4,Lots 5653-5659,Lot 5661,Lot 5680,Lots 12479-12481
WORK DONE: DIAD 9587.8 m 76 hole(s);NQ
LINE 35.8 km
SAMP 5242 sample(s);AU,AG
SOIL 3561 sample(s);AU,AG,CU,PB,AS,ZN

LARDEAU 082K

GEOLOGY: The claims are underlain by metamorphic rocks of the Cambrian-Devonian Lardeau Group. Gold is found in quartz veins and altered rock.
RELATED A.R.: 09137, 11267, 12895, 13920, 14597, 15401

Big R A.R. 17099 REPORT YEAR: 1988, 14 Pages

OPERATOR(S): **Pardek, M.**
AUTHOR(S): Pardek, M.
MINING DIV: Revelstoke
LOCATION: NTS 082K13W LAT. 50 52 43 LONG. 117 57 25
CLAIM(S): Big R 1A-4A
WORK DONE: PROS 73.0 ha
GEOLOGY: The claims appear to be underlain by biotite schist and limestone.
RELATED A.R.: 14070
MINFILE: 082KNW068

Teddy Glacier A.R. 16792 REPORT YEAR: 1987, 40 Pages, 1 Map(s)

OPERATOR(S): **K-2 Res.**
AUTHOR(S): White, G.E. Seyward, M.
MINING DIV: Revelstoke
LOCATION: NTS 082K13W LAT. 50 52 10 LONG. 117 44 00
CLAIM(S): RCG 1
EXPL. TARGET: Copper,Lead,Zinc,Gold,Silver
WORK DONE: EMGR 2.0 km;HLEM - 1 Map(s); 1:1250
GEOLOGY: The area is underlain by phyllites and phyllitic limestones of the Lower Cambrian-Middle Devonian Lardeau Group. Northwest trending schistose rocks are cut by northwest to northerly trending quartz-siderite-galena-pyrite-sphalerite veins carrying gold-silver values.
RELATED A.R.: 10421, 16021
MINFILE: 082KNW062

VERNON 082L

Alex A.R. 18080 REPORT YEAR: 1988, 24 Pages

OPERATOR(S): **Even Res.**
AUTHOR(S): Caltagirone, A.T.
MINING DIV: Vernon
LOCATION: NTS 082L01W LAT. 50 12 00 LONG. 118 23 00
CLAIM(S): Alex 1
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 200.0 ha
ROCK 9 sample(s);AU
GEOLOGY: Upper Triassic Sicamous Formation, Slocan Group black shale with patches of framboids and large pyrite porphyroblasts, argillite, massive siltstone, tuff and calcareous pelite with minor conglomerate and phyllite are cut by white, rusty and rose-colored quartz veins and stringers that follow hairline fractures. Sulphide mineralization is not significant. Bedding angles vary, but the general dip is north-northwest. Small scale folding is evident within the above units.

Bel A.R. 16783 REPORT YEAR: 1987, 104 Pages, 5 Map(s)

OPERATOR(S): **Goldsmith, L.B.**
AUTHOR(S): Kallock, P. Goldsmith, L.B.
MINING DIV: Vernon
LOCATION: NTS 082L01W LAT. 50 11 07 LONG. 118 24 40
CLAIM(S): Bel 1-2
EXPL. TARGET: Silver,Gold,Lead
WORK DONE: GEOL 8.0 ha - 3 Map(s); 1:1000,1:100
LINE 156.5 km
ROCK 22 sample(s);AU,AG,AS
SOIL 3129 sample(s);AU,AG - 2 Map(s); 1:2500
GEOLOGY: Argillites of the Triassic Sicamous Formation (Slocan Group?) with subordinate phyllitic black schist and quartzite host quartz veins in fracture or shear zones. Some fractures parallel or transect quartz veins. Galena and pyrite contain gold and silver values.
RELATED A.R.: 08063, 10493
MINFILE: 082LSE054

Dona A.R. 17663 REPORT YEAR: 1988, 37 Pages, 2 Map(s)

OPERATOR(S): **Keefer Res.**
AUTHOR(S): Collins, D.A.
MINING DIV: Vernon
LOCATION: NTS 082L01W LAT. 50 08 08 LONG. 118 23 14
CLAIM(S): Dona 1-2,Irene 2-3,Irene 5

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Dona A.R. 18147 REPORT YEAR: 1988, 67 Pages, 2 Map(s)

OPERATOR(S): **Keefer Res.**
AUTHOR(S): Thompson, D.A.
MINING DIV: Vernon
LOCATION: NTS 082L01W LAT. 50 08 00 LONG. 118 24 00
CLAIM(S): Irene 2-3.Irene 5

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KP A.R. 16935 REPORT YEAR: 1988, 30 Pages

OPERATOR(S): **Crowe, G.G.**
AUTHOR(S): Carpenter, T.H.
MINING DIV: Vernon
LOCATION: NTS 082L01W LAT. 50 11 46 LONG. 118 25 55
CLAIM(S): KP 1-2,KP 4
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: HMIN 3 sample(s);ME
PROS 375.0 ha
ROCK 14 sample(s);ME
SILT 11 sample(s);ME
SOIL 56 sample(s);ME
GEOLOGY: Quartz veins mineralized with gold and massive sulphides occur in argillites of the Permian-Pennsylvanian Cache Creek Group. Intrusive rocks of Jurassic-Cretaceous age are thought to underlie the Cache Creek Group rocks. Some evidence indicates the possibility of quartz stockwork within the claims.

Creighton (Bonneau) A.R. 17157 REPORT YEAR: 1988, 106 Pages, 21 Map(s)

OPERATOR(S): **OPX Min. MineQuest Ex. Assoc.**
AUTHOR(S): Lee, L.J. Gosse, R.R.
MINING DIV: Vernon
LOCATION: NTS 082L02E, 082L02W LAT. 50 10 15 LONG. 118 40 56
CLAIM(S): Bonne I-II,Echo II,Bonneau II,Hump II
EXPL. TARGET: Gold
WORK DONE: SILT 1348 sample(s);ME - 2 Map(s); 1:5000
SOIL 543 sample(s);ME - 19 Map(s); 1:10 000,1:5000,1:2500,1:1000
GEOLOGY: The Proterozoic Shuswap Metamorphic Complex is overlain by unmetamorphosed volcanics and sediments. Paleozoic rocks underlie a portion of the property.

Hilton A.R. 17386 REPORT YEAR: 1987, 28 Pages

OPERATOR(S): **Ashworth Ex.**
AUTHOR(S): Yacoub, F.F. Leriche, P.D.
MINING DIV: Vernon
LOCATION: NTS 082L02E LAT. 50 10 53 LONG. 118 32 22
CLAIM(S): Snafu,Cover Up
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: GEOL 125.0 ha
ROCK 22 sample(s);ME
GEOLOGY: The claims are underlain by Paleozoic andesite flows and tuffs, argillite, greywacke, quartzite and limestone. Later stage felsite and lamprophyre dykes intrude sediments parallel to bedding striking 255 degrees and dipping 55 degrees south. Quartz pods mineralized with galena and sphalerite occur within east striking shears.
MINFILE: 082LSE

Pita A.R. 18071 REPORT YEAR: 1988, 38 Pages, 6 Map(s)

OPERATOR(S): **Approach Res.**
AUTHOR(S): Jones, H.M.
MINING DIV: Vernon
LOCATION: NTS 082L02E LAT. 50 09 00 LONG. 118 33 00
CLAIM(S): Pita 2,Pita 5
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: GEOL 35.0 ha - 1 Map(s); 1:2500
LINE 9.7 km
SOIL 352 sample(s);ME - 5 Map(s); 1:2500
GEOLOGY: Property is underlain by Permian to Pennsylvanian aged Thompson Assemblage and Upper Triassic Slocan Group rocks. Both units are similar, consisting of interbedded sediments, including limestone and volcanics. They are intruded by two stages of plutonic rocks, the larger granitic masses being related to the Jurassic aged Nelson batholith, the smaller ones of possibly Cretaceous age. All rocks are capped by Tertiary volcanics of the Kamloops Group. Northwest staking faults and folds are common. Disseminated pyrite is common in most rocks.
RELATED A.R.: 15878

Bearcub A.R. 17695 REPORT YEAR: 1988, 22 Pages, 1 Map(s)

OPERATOR(S): **Brenda Mines**
AUTHOR(S): Bruaset, R.U.
MINING DIV: Vernon
LOCATION: NTS 082L02W, 082L07W LAT. 50 15 00 LONG. 118 48 00
CLAIM(S): Bearcub 1-2
EXPL. TARGET: Feldspar
WORK DONE: PITS 36 pit(s)
ROCK 76 sample(s);ME - 1 Map(s); 1:4000
GEOLOGY: The property is underlain by a pegmatite in Shuswap Metamorphic Complex of Proterozoic and Paleozoic age hosted by quartz-mica schists, limestone and diorite complex folding which dips generally east.

Insect A.R. 17624 REPORT YEAR: 1988, 17 Pages, 2 Map(s)

OPERATOR(S): **Triple Star Res.**
AUTHOR(S): Caltagirone, A.T.
MINING DIV: Vernon
LOCATION: NTS 082L02W LAT. 50 12 00 LONG. 118 57 00
CLAIM(S): Fly,Spider,Beetle
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 2500.0 ha 15 ;AU,AG - 2 Map(s); 1:15 000
GEOLOGY: The Insect group consists of a sequence of interlayered, regionally metamorphosed volcanic and sedimentary rock overlain to the north by intermediate to mafic volcanics and intruded to the south by late plutonics. The oldest volcanics and sediments belong to the carboniferous and Permian Thompson Assemblage and have undergone lower greenschist facies metamorphism. These are overlain by argillaceous limestone to the east, which in turn is overlain by andesites of the Jurassic and Triassic Nicola Group. The foliations in the sediments and volcanics generally strike north to northwest.

Moss A.R. 17041 REPORT YEAR: 1987, 71 Pages, 5 Map(s)

OPERATOR(S): **MineQuest Ex. Assoc.**
AUTHOR(S): Gosse, R.R. Sasso, A.
MINING DIV: Vernon
LOCATION: NTS 082L02W LAT. 50 08 00 LONG. 118 50 00
CLAIM(S): Moss II,Moss VII
EXPL. TARGET: Gold

WORK DONE: EMGR 6.8 km; VLF
GEOL 100.0 ha - 1 Map(s); 1:2000
IPOL 0.4 km - 1 Map(s); 1:1000
MAGG 12.0 km
SAMP 140 sample(s);ME - 2 Map(s); 1:2000
SOIL 466 sample(s);ME - 1 Map(s); 1:2000
GEOLOGY: Several vertical mineralized cherty quartz veins approximately 10-15 centimetres wide and 100 metres long cross-cut argillic altered Eocene Kamloops Group dacitic tuff and flow rocks.

Kalamalka A.R. 18043 REPORT YEAR: 1988, 75 Pages, 3 Map(s)

OPERATOR(S): **Triple Star Res.**
AUTHOR(S): Coombes, S.F.
MINING DIV: Vernon
LOCATION: NTS 082L03E LAT. 50 12 20 LONG. 119 05 30
CLAIM(S): Gus 1-6,Chance
EXPL. TARGET: Gold
WORK DONE: GEOL 60.0 ha
IPOL 3.2 km
ROAD 5.2 km
SAMP 91 sample(s);AU,AG - 1 Map(s); 1:1000
TOPO 12.0 ha
TREN 500.0 m 17 trench(es)
UNDD 309.0 m 10 hole(s);BQ - 2 Map(s); 1:250
UNDV 40.0 m
GEOLOGY: On the property gold bearing quartz veins fill dilatant zones within faults cutting Jurassic to Eocene diorite intrusive near its contact with metasediments. The property produced 7000 tonnes prior to 1942 from two levels (90 136 grams gold, and 108 050 grams silver).
RELATED A.R.: 16442
MINFILE: 082LSW050

Dome A.R. 17801 REPORT YEAR: 1988, 34 Pages, 1 Map(s)

OPERATOR(S): **Huntington Res.**
AUTHOR(S): Gruenwald, W.
MINING DIV: Vernon
LOCATION: NTS 082L04E LAT. 50 04 30 LONG. 119 40 12
CLAIM(S): Dome 1
EXPL. TARGET: Gold
WORK DONE: SILT 4 sample(s);AU,ME
SOIL 53 sample(s);AU,ME - 1 Map(s); 1:5000
GEOLOGY: The property is near the contact between Tertiary Kamloops Group volcanic rocks and Mesozoic granitic rocks belonging to the Okanagan Batholith.
RELATED A.R.: 16229

Esperon A.R. 17916 REPORT YEAR: 1988, 14 Pages, 1 Map(s)

OPERATOR(S): **Chevron Min.**
AUTHOR(S): Gilmour, W.R.
MINING DIV: Vernon
LOCATION: NTS 082L04E LAT. 50 04 30 LONG. 119 40 45
CLAIM(S): Esp 2-4
EXPL. TARGET: Gold,Silver,Copper,Molybdenum/Molybdenite
WORK DONE: HMIN 4 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: Property is underlain by a variety of Jurassic intrusive rocks, namely , gabbro, quartz diorite, granodiorite and quartz monzonite. Sporadic molybdenum occurs in quartz veinlets in quartz monzonite.

Golden Elephant A.R. 17568 REPORT YEAR: 1988, 35 Pages, 3 Map(s)

OPERATOR(S): **Lucky 7 Ex.**
AUTHOR(S): Mehner, D.T.
MINING DIV: Vernon
LOCATION: NTS 082L04E LAT. 50 10 23 LONG. 119 35 07
CLAIM(S): Golden Elephant
EXPL. TARGET: Gold,Silver
WORK DONE: LINE 19.4 km
SOIL 481 sample(s);CU,PB,ZN,AG,AU - 3 Map(s); 1:2500
GEOLOGY: Carboniferous to Lower Triassic metasediments are intruded by Jurassic granodiorite. Just north of the property a Tertiary syenite stock intrudes Jurassic granodiorite. Coeval Tertiary flows and pyroclastics overlie the units. Miocene and Pliocene plateau lavas cap portions of the stratigraphy. A northwest trending Tertiary fault is inferred to strike through the property and extend to the Huntington property to the north and the White Elephant deposit to the south.

Miller 1 A.R. 16923 REPORT YEAR: 1988, 28 Pages, 1 Map(s)

OPERATOR(S): **Eureka Res.**
AUTHOR(S): Leishman, D.A.
MINING DIV: Vernon
LOCATION: NTS 082L04E LAT. 50 11 24 LONG. 119 35 24
CLAIM(S): Miller 1
EXPL. TARGET: Gold
WORK DONE: LINE 4.8 km
SOIL 216 sample(s);AU - 1 Map(s); 1:5000
GEOLOGY: Pre-Tertiary and younger volcanics trending northwesterly show similarly trending "fracture" lineaments. Mineralization on the nearby Brett claims may be related to this structure. On the Miller 1 claim one soil sample contained 385 ppb gold.
RELATED A.R.: 15316

Miller-Lite A.R. 18060 REPORT YEAR: 1988, 72 Pages, 2 Map(s)

OPERATOR(S): **Eureka Res.**
AUTHOR(S): Leishman, D.A.
MINING DIV: Vernon
LOCATION: NTS 082L04E LAT. 50 11 00 LONG. 119 36 00
CLAIM(S): Miller 1,Lite
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 800.0 ha - 1 Map(s); 1:5000
HMIN 3 sample(s);AU,AG,AS
ROCK 28 sample(s);AU
SOIL 737 sample(s);AU,AG,AS,SB,BA,CU,ZN - 1 Map(s); 1:5000
GEOLOGY: A Tertiary sequence of sedimentary and volcanic units are intruded by northwest striking syenitic dykes. Northwest trending fracture and shear zones may serve as conduits for mineralizing fluids carrying "Bonanza" values of precious metals. The Miller-Lite claim is thought to be a mirror image of the nearby Brett property.
RELATED A.R.: 15316, 16923

Queen Bee A.R. 17735 **REPORT YEAR: 1988, 21 Pages**

OPERATOR(S): **War Eagle Min.**
AUTHOR(S): Woolverton, R.
MINING DIV: Vernon
LOCATION: NTS 082L04E **LAT. 50 13 45 LONG. 119 44 00**
CLAIM(S): Queen Bee
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 25.0 ha 9 ;ME
GEOLOGY: The property is underlain by a Tertiary sedimentary-volcanic pile consisting of andesite to rhyolite flows and tuffs on a basal conglomerate to shale.

Whit A.R. 18004 **REPORT YEAR: 1988, 185 Pages, 16 Map(s)**

OPERATOR(S): **Can. Occidental Petr.**
AUTHOR(S): Saracoglu, N.
MINING DIV: Vernon
LOCATION: NTS 082L04E **LAT. 50 13 00 LONG. 119 38 00**
CLAIM(S): Whit 1-18,Whit 20-23
WORK DONE: ROCK 44 sample(s);AU,ME - 1 Map(s); 1:4800
SILT 80 sample(s);AU,ME - 2 Map(s); 1:4800
SOIL 814 sample(s);AU,ME - 13 Map(s); 1:4800
GEOLOGY: The property is underlain by Jurassic and Cretaceous felsic intrusives and patches of Tertiary Kamloops Group volcanics. The felsic intrusion consists of syenite and latite porphyry with the contact between them transitional over a distance of 60 metres. In both units the plagioclase has been saussuritized. The Tertiary volcanics range in composition from mafic to felsic. Pyrite is abundant locally in both altered and unaltered rocks and asppears to be largely related to hydrothermal activity.
MINFILE: 082LSW048

Young A.R. 17829 **REPORT YEAR: 1988, 39 Pages, 1 Map(s)**

OPERATOR(S): **Huntington Res.**
AUTHOR(S): Gruenwald, W.
MINING DIV: Vernon
LOCATION: NTS 082L04E **LAT. 50 11 16 LONG. 119 39 50**
CLAIM(S): Young 1
WORK DONE: LINE 4.0 km
SOIL 286 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: The claim is entirely underlain by Eocene volcanic rocks comprised of basalts, dacites and rhyolite. The volcanics are essentially flat lying and cover Jurassic granitic rocks of the Okanagan Batholith.
RELATED A.R.: 16228

Flop A.R. 17095 **REPORT YEAR: 1988, 11 Pages, 1 Map(s)**

OPERATOR(S): **Chevron Min.**
AUTHOR(S): Ziebart, P.
MINING DIV: Nicola
LOCATION: NTS 082L04W **LAT. 50 03 00 LONG. 119 47 30**
CLAIM(S): Flop
EXPL. TARGET: Gold,Copper,Molybdenum/Molybdenite
WORK DONE: PROS 375.0 ha - 1 Map(s); 1:5000
ROCK 20 sample(s);ME
SILT 3 sample(s);ME
GEOLOGY: A northwesterly striking sequence of siliceous argillites with minor limestone and volcanic rocks of Upper Paleozoic age are cut by small quartz-monzonite and quartz porphyry bodies.

Ron A.R. 17281 **REPORT YEAR: 1988, 32 Pages, 2 Map(s)**

OPERATOR(S): **Huntington Res.**
AUTHOR(S): Gruenwald, W.
MINING DIV: Nicola
LOCATION: NTS 082L04W **LAT. 50 14 30 LONG. 119 50 00**
CLAIM(S): Ron 1
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 100.0 ha - 1 Map(s); 1:5000
LINE 12.6 km
ROCK 7 sample(s);AU
SILT 10 sample(s);AU
SOIL 206 sample(s);AU - 1 Map(s); 1:5000
GEOLOGY: The property is underlain by metavolcanic and metasedimentary rocks of the Precambrian Chapperon Group. These rocks are intruded by a large pre-Permian serpentinized ultramafic dyke and numerous Mesozoic granitic dykes. Overlying the entire sequence in the northern portion of the claims are flat lying Tertiary volcanic rocks. Anomalous base and precious metal values occur in all rocks except Tertiary volcanics. Some stream sediments contain visible gold.
RELATED A.R.: 15968

Bolo A.R. 17870 **REPORT YEAR: 1988, 43 Pages, 3 Map(s)**

OPERATOR(S): **Getchell Res.**
AUTHOR(S): Leishman, D.A.
MINING DIV: Vernon
LOCATION: NTS 082L05E **LAT. 50 16 21 LONG. 119 41 19**
CLAIM(S): Bolo 1-4
EXPL. TARGET: Gold
WORK DONE: EMGR 23.8 km;VLF - 1 Map(s); 1:5000
LINE 10.0 km
MAGG 23.8 km - 1 Map(s); 1:5000
ROCK 8 sample(s);ME - 1 Map(s); 1:10 000
SILT 13 sample(s);ME
GEOLOGY: The claim area is underlain by flat-lying Tertiary andesitic to basaltic flows and tuffs.
RELATED A.R.: 15296

Eureka A.R. 17370 **REPORT YEAR: 1987, 12 Pages**

OPERATOR(S): **Peto, P.**
AUTHOR(S): **Peto, P.**
MINING DIV: **Kamloops**
LOCATION: **NTS 082L05E** **LAT. 50 28 00 LONG. 119 39 00**
CLAIM(S): **Grouse 13-14,Grouse 16,Opal**
EXPL. TARGET: **Gold,Copper**
WORK DONE: **PROS 100.0 ha**
ROCK 5 sample(s);AU,CU
SILT 10 sample(s);AU,CU
SOIL 5 sample(s);CU,AU
GEOLOGY: **A northwest trending fault zone, 30 metres wide and dipping**

50 degrees to the northeast, cuts Kamloops volcanic flow and sedimentary rocks. The zone is mineralized with disseminated pyrite and chalcopyrite with gold values in fractured rocks and quartz veinlets. Strong hematite and limonite stains occur locally.
MINFILE: 082LSW065

Nugget A.R. 17802 REPORT YEAR: 1988, 29 Pages, 1 Map(s)

OPERATOR(S): **Huntington Res.**
AUTHOR(S): Gruenwald, W.
MINING DIV: Nicola
LOCATION: NTS 082L05W LAT. 50 20 18 LONG. 119 46 42
CLAIM(S): Nugget
EXPL. TARGET: Gold
WORK DONE: ROCK 1 sample(s);AU,ME
SILT 8 sample(s);AU,ME
SOIL 53 sample(s);AU,ME - 1 Map(s); 1:5000
GEOLOGY: The property lies near the contact of the Tertiary aged Kamloops Group and granitici rocks of the Mesozoic Okanagan Batholith.
RELATED A.R.: 16438

Bop A.R. 17371 REPORT YEAR: 1988, 22 Pages, 1 Map(s)

OPERATOR(S): **Tournigan Min.**
AUTHOR(S): Jenks, J.D.
MINING DIV: Vernon
LOCATION: NTS 082L06W LAT. 50 25 30 LONG. 119 18 00
CLAIM(S): Bop
EXPL. TARGET: Gold
WORK DONE: GEOL 500.0 ha - 1 Map(s); 1:4000
SAMP 2 sample(s);AU,AG
GEOLOGY: Rusty-weathering quartz veins cut highly fractured argillaceous strata of the Permian Cache Creek Formation. The veins are up to 2.4 metres wide with nearly vertical dip and easterly strike.
MINFILE: 082LSW011

Equesis Creek A.R. 17167 REPORT YEAR: 1988, 203 Pages, 31 Map(s)

OPERATOR(S): **QPX Min.**
AUTHOR(S): Stanford, C.A.
MINING DIV: Vernon
LOCATION: NTS 082L06W LAT. 50 23 26 LONG. 119 23 18
CLAIM(S): Peak I-IV,Irish 1-2,Tiki 2
EXPL. TARGET: Gold
WORK DONE: EMGR 64.5 km;VLF - 8 Map(s); 1:5000,1:1000
IPOL 12.5 km - 2 Map(s); 1:1000
LINE 64.5 km
MAGG 64.5 km - 3 Map(s); 1:5000,1:1000
PETR 12 sample(s)
SAMP 852 sample(s);ME
SOIL 2695 sample(s);ME - 6 Map(s); 1:5000
TREN 2268.0 m 44 trench(es) - 12 Map(s); 1:500
GEOLOGY: Basement rocks consist of the Jurassic-Triassic Slocan Group and Upper Triassic Nicola Group intruded by Cretaceous-Tertiary monzonite dykes. Erosional remnants of Tertiary basalt caps occur at higher elevations.
RELATED A.R.: 16039
MINFILE: 082LSW

Goodenough A.R. 18179 REPORT YEAR: 1988, 16 Pages

OPERATOR(S): **Brican Res.**
AUTHOR(S): Wynne, F.L.
MINING DIV: Vernon
LOCATION: NTS 082L06W LAT. 50 18 00 LONG. 119 28 00
CLAIM(S): Goodenough
EXPL. TARGET: Copper,Silver,Gold
WORK DONE: DIAD 63.0 m 1 hole(s);NQ
SAMP 21 sample(s);ME
GEOLOGY: The region in which the property lies is located within a northwest trending belt of metavolcanic and metasedimentary rocks of the Upper Paleozoic or Lower Triassic Cache Creek Group. The property is underlain by a thick sequence of northwest trending, steeply north dipping argillite, limestone and basic to intermediate volcanic rocks. Outcrop is scarce on the property with most rock exposures confined to old trenches. Copper-magnetite mineralization on the property carries low values in gold.
MINFILE: 082LSW004

Radex A.R. 17569 REPORT YEAR: 1988, 5 Pages, 1 Map(s)

OPERATOR(S): **Blyth, W.**
AUTHOR(S): Muloin, B.T.
MINING DIV: Vernon
LOCATION: NTS 082L06W LAT. 50 26 00 LONG. 119 18 00
CLAIM(S): Radex 1
EXPL. TARGET: Gold
WORK DONE: MAGG 8.0 km - 1 Map(s); 1:5000
GEOLOGY: The property is underlain by a series of east striking phyllites with dioritic intrusives along north striking lineaments.

Skookum A.R. 17928 REPORT YEAR: 1988, 51 Pages, 5 Map(s)

OPERATOR(S): **Canova Res.**
AUTHOR(S): Thompson, D.A. Grond, H.C.
MINING DIV: Vernon
LOCATION: NTS 082L06W LAT. 50 21 00 LONG. 119 23 00
CLAIM(S): Ona,Vera 1
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: GEOL 50.0 ha - 3 Map(s); 1:100,1:5000
ROCK 77 sample(s);ME - 2 Map(s); 1:100
TREN 150.0 m 3 trench(es)
GEOLOGY: The claims are underlain by Upper Triassic Nicola Group volcanics and Upper Triassic Slocan Group sedimentary rocks. Volcanics consist mainly of basaltic and andesitic tuffaceous rocks, while the sediments are argillites. Rocks are cut by granitic intrusive rocks and numerous feldspar porphyry dykes. Gold and silver mineralization (free gold and tetrahedrite) are associated with quartz veins.
MINFILE: 082LSW013

Vera A.R. 16816 REPORT YEAR: 1988, 16 Pages

OPERATOR(S): **Canova Res.**
AUTHOR(S): Shaw, D.
MINING DIV: Vernon
LOCATION: NTS 082L06W LAT. 50 21 51 LONG. 119 21 13

CLAIM(S): Golden Zone 1
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 0.3 ha
GEOLOGY: An augite porphyry of the Upper Triassic Nicola Group hosts quartz veins which occupy tensional joint fractures adjacent to a shear zone. At the contact of the thickest vein with the overlying porphyry, there is a thin seam of sulphide-hosted precious metal mineralization.

Vera A.R. 17664 REPORT YEAR: 1988, 73 Pages, 1 Map(s)

OPERATOR(S): **Canova Res.**
AUTHOR(S): Grond, H.C.
MINING DIV: Vernon
LOCATION: NTS 082L06W LAT. 50 21 27 LONG. 119 21 12
CLAIM(S): Golden Zone 1,Vera 1,Vera 4-6,Tick,Tock
EXPL. TARGET: Silver,Gold,Lead,Copper
WORK DONE: EMGR 6.5 km;VLF
GEOL 731.0 ha - 1 Map(s); 1:5000
LINE 6.5 km
ROCK 27 sample(s);AG,AS,CU,PB,SB,ZN,AU
SILT 1 sample(s);AG,AS,CU,PB,SB,ZN,AU
SOIL 259 sample(s);AG,AS,CU,PB,SB,ZN,AU
GEOLOGY: The claims are underlain by Upper Triassic Nicola Group volcanics and Jurassic-Triassic Slocan Group sedimentary rocks intruded by Cretaceous intrusions with associated feldspar porphyry dykes. Gold-silver-lead-copper mineralization is associated with quartz veins related to feldspar porphyry dykes.
RELATED A.R.: 16816
MINFILE: 082LSW015, 082LSW079

Lumby A.R. 17816 REPORT YEAR: 1988, 15 Pages, 4 Map(s)

OPERATOR(S): **Zicton Gold**
AUTHOR(S): Allen, A.R.
MINING DIV: Vernon
LOCATION: NTS 082L07W LAT. 50 15 53 LONG. 118 55 26
CLAIM(S): B.S. 3
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 4.8 km;VLF - 2 Map(s); 1:2500
MAGG 4.8 km - 2 Map(s); 1:126 720,1:2500
GEOLOGY: The claim area is underlain by the Proterozoic Shuswap Metamorphic Complex consisting of gneiss and phyllite, Permo-Pennsylvanian Cache Creek Group sediments and Upper Triassic Nicola Group argillite, andesite and tuff. A small diorite stock occurs. Structure consists of folding and major faults. Gold, silver, minor galena, chalcopyrite and pyrrhotite occur in and are associated with fault zones.
RELATED A.R.: 16349

OM A.R. 17470 REPORT YEAR: 1988, 22 Pages

OPERATOR(S): **McCrory Holdings (Yukon)**
AUTHOR(S): Nicholson, G.
MINING DIV: Vernon
LOCATION: NTS 082L10W LAT. 50 43 00 LONG. 118 45 00
CLAIM(S): OM 1-6
EXPL. TARGET: Marble
WORK DONE: PROS 150.0 ha
GEOLOGY: The claims are within the Shuswap metamorphic complex of Pre-Cambrian to Lower Paleozoic age and are underlain by metasediments and calc-silicate rocks. Locally thick beds (averaging 200 feet) of marble, calc-silicate gneiss and quartzite are seen complexly folded and faulted, striking generally north-northeast and dipping southeast. Foliation is subparallel to the layering.
MINFILE: 082LNE

Platinum Giant A.R. 17144 REPORT YEAR: 1988, 17 Pages

OPERATOR(S): **Lutjen, L.D.**
AUTHOR(S): Lutjen, L.D.
MINING DIV: Kamloops
LOCATION: NTS 082L11W LAT. 50 40 30 LONG. 119 17 31
CLAIM(S): Platinum Giant 1-2
EXPL. TARGET: Silver,Gold,Platinum,Copper,Zinc,Lead,Tin
WORK DONE: PROS 500.0 ha
GEOLOGY: Upper Triassic Sicamous Formation argillites and limestone are underlain by Cambro-Ordovician Silver Creek Formation schists. These formations are intruded by Early Cretaceous(?) mica granites and subsequently capped by Eocene Kamloops Group volcanics. Mineralization occurs along sheeted fracture zones carrying pyrite, arsenopyrite, galena, chalcopyrite, sphalerite, marcasite, argentite, cosalite, flourite and cassiterite.
MINFILE: 082LNW007

Ford A.R. 16965 REPORT YEAR: 1987, 18 Pages, 25 Map(s)

OPERATOR(S): **Clifton Res.**
AUTHOR(S): Lloyd, J.
MINING DIV: Kamloops
LOCATION: NTS 082L13E, 082M04E LAT. 50 58 49 LONG. 119 38 59
CLAIM(S): Woof 1,Woof 3,Ford 1-3
EXPL. TARGET: Gold,Copper,Silver,Lead,Zinc
WORK DONE: IPOL 22.2 km - 25 Map(s); 1:10 000,1:2000,1:1000
GEOLOGY: The claims are underlain by a northeast trending belt of intermediate to felsic volcanics dipping at 30 degrees to the northwest. The volcanics are of Devonian age and several units contain pyrite, pyrrhotite, chalcopyrite, sphalerite and galena mineralization considered to be of volcanic origin.
MINFILE: 082LNW053

Ford/Woof A.R. 17232 REPORT YEAR: 1988, 31 Pages

OPERATOR(S): **Clifton Res.**
AUTHOR(S): Olfert, E.G.
MINING DIV: Kamloops
LOCATION: NTS 082L13E, 082M04E LAT. 51 00 00 LONG. 119 38 00
CLAIM(S): Ford 4,Woof 3
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: DIAD 633.5 m 6 hole(s); BQ
SAMP 4 sample(s);AU,AG,CU,PB,ZN
GEOLOGY: The property is underlain by the Eagle Bay Formation consisting of felsic volcanics and minor mafic volcanics and argillaceous sediments. The rocks are well foliated and strike to the northeast with dips approximately 30 degrees to the northwest. Mineralization consists of stratiform disseminated pyrite with minor copper, zinc sulphides hosted in felsic volcanics.

VERNON 082L

RELATED A.R.: 13400
MINFILE: 082L, 082M

Scotch A.R. 17543 REPORT YEAR: 1988, 87 Pages, 1 Map(s)

OPERATOR(S): **Antioch Res.**
AUTHOR(S): Kyba, B.W.
MINING DIV: Kamloops
LOCATION: NTS 082L13E, 082L14W LAT. 50 57 00 LONG. 119 30 00
CLAIM(S): Scotch,Scotch 2
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold
WORK DONE: DIAD 1220.4 m 6 hole(s);NQ - 1 Map(s); 1:5000
SAMP 480 sample(s);ME
GEOLOGY: The area is underlain by an upper Paleozoic thick interbanded pile of chlorite-sericite schist and quartz chlorite sericite schist that conformably overlies a thin interbedded sequence of graphitic-phyllitic argillite and argillaceous marble. Weakly developed massive sulphide type mineralization occurs in the metavolcanics.
RELATED A.R.: 06237, 06419, 07691, 12216, 14998, 16176
MINFILE: 082LNW

Cahilty A.R. 17699 REPORT YEAR: 1988, 16 Pages, 1 Map(s)

OPERATOR(S): **Brican Res.**
AUTHOR(S): Ziebart, P.
MINING DIV: Kamloops
LOCATION: NTS 082L13W LAT. 50 57 08 LONG. 119 49 52
CLAIM(S): Cahilty 1-4
EXPL. TARGET: Lead,Zinc,Arsenic
WORK DONE: ROCK 18 sample(s);ME - 1 Map(s); 1:5000
SILT 6 sample(s);ME
GEOLOGY: Sediments and metasediments belonging to the Mount Ida Group and Permo-Pennsylvanian Cache Creek Group underlie the property. These sedimentary horizons are intruded by plutons of the Upper Cretaceous Coast Plutonic Complex.
RELATED A.R.: 01652
MINFILE: 082LNW005, 082LNW006

Cop A.R. 17698 REPORT YEAR: 1988, 11 Pages, 1 Map(s)

OPERATOR(S): **National Res. Ex.**
AUTHOR(S): Ziebart, P.
MINING DIV: Kamloops
LOCATION: NTS 082L14W LAT. 50 56 46 LONG. 119 24 01
CLAIM(S): Cop 1
WORK DONE: ROCK 8 sample(s);ME
SILT 3 sample(s);ME
SOIL 57 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: The claim is underlain by the contact between sediments of the Sicamous Formation and greenstones and limestones of the Devonian-Mississippian Eagle Bay Formation. Outcrop exposure is limited to less than 5 per cent of the property.

Eagle A.R. 17750 REPORT YEAR: 1988, 23 Pages, 1 Map(s)

OPERATOR(S): **National Res. Ex.**
AUTHOR(S): Wynne, F.L.
MINING DIV: Kamloops
LOCATION: NTS 082L14W LAT. 50 55 00 LONG. 119 17 00
CLAIM(S): Eagle 2-6
WORK DONE: EMGR 3.4 km;HELM
GEOL 2500.0 ha - 1 Map(s); 1:5000
LINE 17.1 km
GEOLOGY: The property is mainly underlain by felsic volcanic and sedimentary rocks of the Cambrian to Ordovician Eagle Bay Formation. This east striking, north dipping sequence includes phyllites, schists, limestones and quartzites.

Ferris A.R. 18132 REPORT YEAR: 1988, 30 Pages, 8 Map(s)

OPERATOR(S): **National Res. Ex.**
AUTHOR(S): Wynne, F.L.
MINING DIV: Kamloops
LOCATION: NTS 082L14W LAT. 50 54 00 LONG. 119 21 00
CLAIM(S): Ferris 1,Ferris 3
WORK DONE: SOIL 348 sample(s);ME - 8 Map(s); 1:5000,1:10 000
GEOLOGY: The claims lie astride the contact between Sicamous Formation consisting of impure limestone to the south and Eagle Bay rocks to the north. The Eagle Bay is comprised mainly of greenstone and limestone with a sequence of probable felsic volcanic "paper schist" at the contact. The sequence is homoclinal and dips north.

SEYMOUR ARM 082M

Golden Eagle A.R. 18065 REPORT YEAR: 1988, 40 Pages, 5 Map(s)

OPERATOR(S): **Mineta Res.**
AUTHOR(S): Wells, R.C.
MINING DIV: Kamloops
LOCATION: NTS 082M03W LAT. 51 04 00 LONG. 119 27 00
CLAIM(S): Golden Eagle
EXPL. TARGET: Copper,Lead,Zinc,Silver
WORK DONE: LINE 4.0 km
SOIL 160 sample(s);ME - 5 Map(s); 1:2500
GEOLOGY: The property is underlain by Devonian to Mississippian Eagle Bay Formation chloritic schists and calcareous phyllites with minor limestone which strike east. In the eastern part of the property these are intruded by a large felsic stock of unknown age. The contact is thought to trend north. Exposures are rare. Disseminated sphalerite and galena has been found in place in siliceous phyllite.
RELATED A.R.: 15513, 15531

Keta A.R. 17347 REPORT YEAR: 1988, 20 Pages

OPERATOR(S): **Bristow, J.F.**
AUTHOR(S): Bristow, J.F.
MINING DIV: Kamloops
LOCATION: NTS 082M03W LAT. 51 01 42 LONG. 119 26 47
CLAIM(S): Rusty
EXPL. TARGET: Gold
WORK DONE: GEOL 0.4 ha
PETR 1 sample(s)
GEOLOGY: The claims are reportedly underlain by grey-green to brown phyllites and greenstones of the Devono-Mississippian Eagle Bay Formation locally intruded by porphyritic granodiorites and/or diorites. In general, overburden is deep with outcrops confined

mainly to road cuts and steep canyon walls.

Adams A.R. 16950 REPORT YEAR: 1988, 24 Pages

OPERATOR(S): **Adams Ex.**
AUTHOR(S): Spencer, B.E. Olfert, E.G.
MINING DIV: Kamloops
LOCATION: NTS 082M04E LAT. 51 04 08 LONG. 119 37 30
CLAIM(S): Bee-2A
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold
WORK DONE: DIAD;BQ
SAMP;AU,AG,CU,PB,ZN

GEOLOGY: The property is underlain by mafic-felsic volcanic rocks and argillaceous sediments of the Devonian-Mississippian Eagle Bay Formation. The rocks are well-foliated, partially skarned and strike to the northeast with dips approximately 30 degrees to the northwest. Distal massive sulphides occur in the Lucky Coon, Golden Eagle and Elsie showings. A felsic volcanic package below the Elsie zone was the target tested by the drill programme.

RELATED A.R.: 10665, 11022, 11521, 11601, 11933, 13142, 13542, 16024, 16949
MINFILE: 082M 012, 082M 213

Adams A.R. 16949 REPORT YEAR: 1988, 33 Pages

OPERATOR(S): **Adams Ex.**
AUTHOR(S): Olfert, E.G. Spencer, B.E.
MINING DIV: Kamloops
LOCATION: NTS 082M04E LAT. 51 04 11 LONG. 119 35 17
CLAIM(S): Adam 8
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold
WORK DONE: DIAD 942.1 m 14 hole(s);BQ
SAMP 5 sample(s);AU,AG,CU,PB,ZN

GEOLOGY: The property is underlain by mafic-felsic volcanics and sediments of the Devonian-Mississippian Eagle Bay Formation. Rocks are well-foliated, striking northeast and dipping 30 degrees to the northwest. Stratiform disseminated to massive pyrrhotite, pyrite, sphalerite, chalcopyrite and galena occur, associated with a felsic volcanic pile.

RELATED A.R.: 10665, 11022, 11521, 11601, 11933, 13142, 13542, 16024

Adams Lake A.R. 17239 REPORT YEAR: 1988, 133 Pages, 7 Map(s)

OPERATOR(S): **Berglynn Res.**
AUTHOR(S): Montgomery, A.
MINING DIV: Kamloops
LOCATION: NTS 082M04E LAT. 51 10 00 LONG. 119 42 00
CLAIM(S): Hut 4-6,Over 1-2,Surgeo
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: GEOL 1520.0 ha - 1 Map(s); 1:10 000
ROCK 50 sample(s);AU,AG,AS,CU,PB,BA
SOIL 3127 sample(s);AU,AG,AS,CU,PB,BA - 6 Map(s); 1:10 000

GEOLOGY: The property is underlain by rocks of the Devonian Eagle Bay Formation and the Cambrian and older Spapilem Creek - Deadfall Creek succession. A southwest directed thrust fault cuts diagonally across the property overthrowing the older Spapilem rocks onto the Eagle Bay rocks. The Eagle Bay rocks include chlorite schist with interbedded quartzite, phyllite, and limestone. Minor disseminated pyrite and magnetite, and quartz veins are common throughout the schist; quartz veining is also common in the limestone. The Spapilem Creek units include quartzite and a variably schist to phyllite unit.

RELATED A.R.: 15431

Adams Lake A.R. 17066 REPORT YEAR: 1988, 97 Pages, 7 Map(s)

OPERATOR(S): **Omni Res.**
AUTHOR(S): Montgomery, A.
MINING DIV: Kamloops
LOCATION: NTS 082M04E LAT. 51 06 42 LONG. 119 43 54
CLAIM(S): Chris 1-2,Eric 1,Caesar 2
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: GEOL 700.0 ha - 1 Map(s); 1:10 000
ROCK 11 sample(s);AU,AG,PB,CU,AS,BA
SOIL 2052 sample(s);AU,AG,PB,CU,AS,BA - 6 Map(s); 1:10 000

GEOLOGY: The claim area is underlain by a succession of calcareous chlorite schist, limestone and related units of the Devonian-Mississippian Eagle Bay Formation. Lithologic contacts and foliation trend northwest to west. No significant mineralization has been located on the property, however, a number of gold-silver and massive sulphide showings have been identified in the region.

RELATED A.R.: 13401

Alpha A.R. 16951 REPORT YEAR: 1988, 14 Pages

OPERATOR(S): **Adams Ex.**
AUTHOR(S): Spencer, B.E.
MINING DIV: Kamloops
LOCATION: NTS 082M04E LAT. 51 03 42 LONG. 119 38 06
CLAIM(S): Alpha-1
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: DIAD 573.6 m 4 hole(s);BQ

GEOLOGY: The property is underlain by mafic-felsic volcanic rocks and argillaceous sediments of the Devonian-Mississippian Eagle Bay Formation. The rocks are well-foliated, partially skarned and strike to the northeast with dips approximately 30 degrees to the northwest. Distal massive sulphides occur in the Lucky Coon, Golden Eagle and Elsie showings.

RELATED A.R.: 10665, 11022, 11521, 11601, 11933, 13142, 13542, 16024, 16949, 16950

Amy-Dee A.R. 17725 REPORT YEAR: 1988, 87 Pages, 15 Map(s)

OPERATOR(S): **Canova Res.**
AUTHOR(S): Grond, H.C. Karchmar, K.L.
MINING DIV: Kamloops
LOCATION: NTS 082M04E LAT. 51 08 53 LONG. 119 41 18
CLAIM(S): Amy-Dee 1-4
EXPL. TARGET: Zinc,Lead,Copper,Gold,Silver
WORK DONE: EMGR 33.0 km;VLF - 4 Map(s); 1:5000
GEOL 1225.0 ha - 2 Map(s); 1:10 000,1:5000
MAGG 37.0 km - 2 Map(s); 1:5000
ROCK 56 sample(s);AG,AS,BA,CU,PB,ZN,AU - 2 Map(s); 1:10 000
SILT 2 sample(s);AG,AS,BA,CU,PB,ZN,AU
SOIL 650 sample(s);AG,AS,BA,CU,PB,ZN,AU - 5 Map(s); 1:5000

GEOLOGY: The property lies within the Omineca Belt and is underlain by the Devonian-Mississippian Eagle Bay Formation consisting of chloritic and sericitic phyllite, limestone, quartzite, mica schist, argillite and minor conglomerate. Mineralization consists of pyrite, chalcopyrite, hematite and galena with some gold and silver values.

RELATED A.R.: 16793
MINFILE: 082M 057

Amy-Dee A.R. 16793 REPORT YEAR: 1987, 23 Pages, 3 Map(s)

OPERATOR(S): **Canova Res.**
AUTHOR(S): Hermary, R.G. White, G.E.
MINING DIV: Kamloops
LOCATION: NTS 082M04E LAT. 51 08 31 LONG. 119 41 48
CLAIM(S): Amy-Dee 1-4
WORK DONE: EMAB 172.0 km;VLF - 2 Map(s); 1:10 000
MAGA 172.0 km - 1 Map(s); 1:10 000
GEOLOGY: The claims are underlain by the Devonian-Mississippian Eagle Bay Formation. Two members were mapped; they are the Tshinakin Limestone consisting of massive white crystalline limestone with minor greenstone and greenschist while the other member consists of greenstone and chloritic phyllite. The magnetic signature indicates faulting and alteration.
MINFILE: 082M 057

Axl A.R. 18140 REPORT YEAR: 1988, 38 Pages

OPERATOR(S): **Clifton Res.**
AUTHOR(S): Spencer, B.E.
MINING DIV: Kamloops
LOCATION: NTS 082M04E LAT. 51 02 00 LONG. 119 37 00
CLAIM(S): Axl 3,Wad 2
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: DIAD 1162.2 m 11 hole(s);BQ
GEOLOGY: The claims are underlain by a northeast trending belt of intermediate to felsic volcanics dipping at 30 degrees to the northwest. The volcanics are of Devonian age and several units contain pyrite, phrrhotite, chalcopyrite, sphalerite and galena mineralization considered to be of volcanogenic origin.
RELATED A.R.: 06546, 06549
MINFILE: 082M 212, 082M 243

HFG A.R. 17691 REPORT YEAR: 1988, 31 Pages, 2 Map(s)

OPERATOR(S): **Gala Res.**
AUTHOR(S): Adamson, R.S.
MINING DIV: Kamloops
LOCATION: NTS 082M04E LAT. 51 05 02 LONG. 119 41 13
CLAIM(S): H.F.G. 1-4
EXPL. TARGET: Copper,Zinc,Lead,Silver,Gold
WORK DONE: EMAB 100.0 km;HLEM - 1 Map(s); 1:10 000
MAGA 100.0 km - 1 Map(s); 1:10 000
GEOLOGY: The property is underlain by Devonian-Mississippian metasedimentary and metavolcanic rocks of the Eagle Bay Formation. Foliation attitudes in chlorite schists (the principal rock type) and felsic tuffs (the second most common rock) strike west-northwest and dip moderately to the north. Minor sphalerite, galena and chalcopyrite occurrences were observed in felsic tuffs.

JR A.R. 16815 REPORT YEAR: 1987, 24 Pages, 2 Map(s)

OPERATOR(S): **Ridgestake Res.**
AUTHOR(S): Wahl, H.J.
MINING DIV: Kamloops
LOCATION: NTS 082M04E LAT. 51 07 50 LONG. 119 32 06
CLAIM(S): JR 4,JR 6
EXPL. TARGET: Copper,Lead,Zinc,Gold,Silver
WORK DONE: LINE 8.2 km
PROS 600.0 ha
ROCK 6 sample(s);CU,PB,ZN,AU,AG
SILT 19 sample(s);CU,PB,ZN,AU,AG
SOIL 215 sample(s);CU,PB,ZN,AG,AU - 2 Map(s); 1:5000
GEOLOGY: The area is extensively mantled by glacial drift. Bedrock is believed to be metasediments and metavolcanics of the Devono-Mississippian Eagle Bay Formation.

Lucky Coon A.R. 17584 REPORT YEAR: 1988, 58 Pages, 11 Map(s)

OPERATOR(S): **Sirius Res.**
AUTHOR(S): Caelles, J.C.
MINING DIV: Kamloops
LOCATION: NTS 082M04E LAT. 51 04 00 LONG. 119 36 00
CLAIM(S): Golden Eagle,Lucky Coon,Last Chance,Adam 4
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: DIAD 875.7 m 10 hole(s) - 11 Map(s); 1:250,1:5000
GEOLOGY: The property is underlain by the Cambrian to Permian Eagle Bay Formation that host stratiform sulphide mineralization of syngenetic origin with volcanic association. The sedimentary sequence has been metamorphosed to greenschist facies and undergone at least three periods of deformation. Sulphide lenses occur in several stratigraphic horizons, associated or not with volcanic rocks. Limited alteration comprise sericitization, carbonatization, and silicification. One hole averaged 0.073 ounces per tonne gold, 1.34 ounces per tonne silver, 1.96 per ccent lead and 2.84 per cent zon over 2.0 metres.
RELATED A.R.: 10665, 11022, 11521, 11601, 11933, 13142, 13542, 16024, 16949, 16950, 16951
MINFILE: 082M 012, 082M 013

Bar A.R. 17052 REPORT YEAR: 1988, 27 Pages, 5 Map(s)

OPERATOR(S): **Minnova**
AUTHOR(S): Gray, M.J. Pirie, I.D.
MINING DIV: Kamloops
LOCATION: NTS 082M04W LAT. 51 13 00 LONG. 119 57 00
CLAIM(S): Bar 6-9
EXPL. TARGET: Copper,Zinc,Lead,Gold,Silver
WORK DONE: ROCK 43 sample(s);ME - 1 Map(s); 1:2500
SOIL 383 sample(s);CU,PB,ZN,BA,AU,AG,AS,SB - 4 Map(s); 1:2500
TREN 780.0 m 11 trench(es)
GEOLOGY: The property is underlain by steeply dipping, northwest-southeast striking mafic and felsic volcanic and sedimentary rocks of the Eagle Bay Formation. Weak to intense carbonate-sericite alteration zones are prevalent at mafic volcanic-sedimentary rock contacts. No significant mineralization has been discovered to date.

Bar A.R. 17264 REPORT YEAR: 1988, 17 Pages, 9 Map(s)

OPERATOR(S): **Minnova**
AUTHOR(S): Pirie, I.D.
MINING DIV: Kamloops
LOCATION: NTS 082M04W, 082M05W LAT. 51 15 00 LONG. 119 58 05
CLAIM(S): FY 2

EXPL. TARGET: Copper,Lead,Zinc,Gold,Silver
WORK DONE: EMGR 15.0 km;HLEM - 2 Map(s); 1:2500
GEOL 187.5 ha - 1 Map(s); 1:2500
ROCK 96 sample(s);ME - 6 Map(s); 1:2500
GEOLOGY: The area is underlain by volcanics and sediments of the Devonian-Mississippian Eagle Bay Formation which strikes northwest with unknown dips. Foliation is stray, also strikes northwest and dips at 20-50 degrees to the northeast. Areas of sericitic alteration with weakly disseminated pyrite occur within felsic volcanics but there are not known occurrences of significant mineralization.

Blom A.R. 16801 REPORT YEAR: 1987, 23 Pages, 3 Map(s)

OPERATOR(S): **Western Can. Min.**
AUTHOR(S): Petersen, D.B.
MINING DIV: Kamloops
LOCATION: NTS 082M04W LAT. 51 14 00 LONG. 119 49 00
CLAIM(S): Blom,Jack 1-2
WORK DONE: SOIL 407 sample(s);ME - 3 Map(s); 1:5000
GEOLOGY: A geochemical survey over Devonian-Mississippian Eagle Bay Formation sediments, tuffs, and agglomerates in contact with a diorite intrusive, failed to return anomalous values. No mineralization has been discovered.
RELATED A.R.: 13332

Cana A.R. 17931 REPORT YEAR: 1988, 33 Pages, 5 Map(s)

OPERATOR(S): **Esso Min. Can.**
AUTHOR(S): Carmichael, R.G. Heberlein, D.R.
MINING DIV: Kamloops
LOCATION: NTS 082M04W LAT. 51 11 00 LONG. 119 51 00
CLAIM(S): Cana 14,Cana 19
EXPL. TARGET: Copper,Lead,Zinc
WORK DONE: DIAD 479.7 m 4 hole(s);NQ - 5 Map(s); 1:250,1:2500
GEOLOGY: No basement geology is exposed on the property, although it is known to be underlain by Mississippian to Devonian Eagle Bay Formation sediments and volcanics. Overlain by a capping (major but unknown extent) of Tertiary basalt and extensive surficial deposits.
RELATED A.R.: 13055

Crown A.R. 17189 REPORT YEAR: 1988, 15 Pages, 4 Map(s)

OPERATOR(S): **Newhawk Gold Mines**
AUTHOR(S): Gilmour, W.R.
MINING DIV: Kamloops
LOCATION: NTS 082M04W LAT. 51 06 48 LONG. 119 54 22
CLAIM(S): Crown 1
WORK DONE: LINE 5.8 km
SOIL 119 sample(s);ME - 4 Map(s); 1:5000
GEOLOGY: The property is underlain by rocks of the Devonian-Mississippian Eagle Bay Formation comprising schists (sedimentary and volcanic), phyllites, quartzites, shales and limestones.
RELATED A.R.: 13193

Gill A.R. 17171 REPORT YEAR: 1988, 14 Pages, 5 Map(s)

OPERATOR(S): **Esso Res. Can.**
AUTHOR(S): Doborzynski, Z.
MINING DIV: Kamloops
LOCATION: NTS 082M04W LAT. 51 11 54 LONG. 119 51 12
CLAIM(S): Gill 1
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: EMGR 10.0 km;Geni - 4 Map(s); 1:5000,1:2500
LINE 8.0 km - 1 Map(s); 1:5000
GEOLOGY: No mineralization has been recorded. The area is underlain by Tertiary basalt of unknown thickness with a cover of glacial till.
RELATED A.R.: 15480

Gill A.R. 16809 REPORT YEAR: 1987, 13 Pages, 2 Map(s)

OPERATOR(S): **Esso Res. Can.**
AUTHOR(S): Marr, J. Carmichael, R.G.
MINING DIV: Kamloops
LOCATION: NTS 082M04W LAT. 51 10 48 LONG. 119 49 58
CLAIM(S): Gill 4-7,Gill 8 Fr.
WORK DONE: SOIL 117 sample(s);CU,PB,ZN,AG,AU,BA - 2 Map(s); 1:2500
GEOLOGY: The area is underlain by Tertiary basalt and Devono-Mississippian Eagle Bay Formation sediments and volcanics.

Johnson Lake A.R. 17011 REPORT YEAR: 1988, 76 Pages, 8 Map(s)

OPERATOR(S): **Island Min. & Ex.**
AUTHOR(S): Montgomery, A.
MINING DIV: Kamloops
LOCATION: NTS 082M04W LAT. 51 11 00 LONG. 119 47 00
CLAIM(S): S.B.L. 1
EXPL. TARGET: Gold,Silver,Arsenic,Lead,Zinc,Copper,Barium/Barite
WORK DONE: GEOL 25.0 ha - 1 Map(s); 1:5000
ROCK 20 sample(s);AU,AG,AS,PB,CU,BA
SOIL 1599 sample(s);AU,AG,AS,PB,ZN,CU,BA - 7 Map(s); 1:10 000
GEOLOGY: The claim is underlain by the Devonian-Mississippian Eagle Bay Formation. Massive Tshinakin limestone forms resistant cliffs trending northwest across the centre of the property, flanked by calcareous chloritic schist to the northeast and southwest. A fine-grained quartzite also outcrops to the northeast. A strong foliation in the schist trends to the northwest dipping to the northeast. Minor disseminated pyrite is common along foliation planes within the schist and minor pyrite has also been observed in the limestone.
RELATED A.R.: 14176

Kamad A.R. 16701 REPORT YEAR: 1987

OPERATOR(S): **Esso Min. Can.**
AUTHOR(S): Heberlein, D.R.
MINING DIV: Kamloops
LOCATION: NTS 082M04W LAT. 51 06 43 LONG. 119 49 38
CLAIM(S): Kamad 1,Kamad 5
WORK DONE: DIAD 1898.6 m 10 hole(s);NQ
SAMP 97 sample(s);AU,AG,CU,PB,ZN,AB,AS
GEOLOGY: Massive sulphide mineralization is hosted in the Eagle Bay Formation; a succession of Devono-Mississippian volcanic and sedimentary rocks. Both mafic and felsic volcanics are present and are interbedded with a variety of sedimentary units.
RELATED A.R.: 01114, 02915, 04134, 04135, 05226

OK A.R. 16843 REPORT YEAR: 1987, 15 Pages, 13 Map(s)

OPERATOR(S): **Algo Res.**
AUTHOR(S): White, G.E.
MINING DIV: Kamloops
LOCATION: NTS 082M04W LAT. 51 08 04 LONG. 119 51 05
CLAIM(S): OK 1-2
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE: IPOL 42.0 km - 13 Map(s); 1:5000,1:2500
GEOLOGY: The claims are underlain by metamorphosed sedimentary and volcanic rocks of Devono-Mississippian age.
RELATED A.R.: 13041
MINFILE: 082M 107

SBS A.R. 17592 REPORT YEAR: 1988, 34 Pages, 16 Map(s)

OPERATOR(S): **Minnova**
AUTHOR(S): Pirie, I.D. Goutier, F.
MINING DIV: Kamloops
LOCATION: NTS 082M04W LAT. 51 03 19 LONG. 119 46 13
CLAIM(S): SBS 1-5
WORK DONE: EMGR 20.0 km;HLEM - 2 Map(s); 1:2500
GEOL 200.0 ha - 2 Map(s); 1:7500,1:2500
LINE 29.8 km
ROCK 220 sample(s);ME - 12 Map(s); 1:7500,1:2500
GEOLOGY: The property is underlain by northwest striking and northeast dipping metavolcanics and sediments of the Devono-Mississippian Eagle Bay Formation. No known mineralization occurs on the claims, however, the Homestake barite-silver deposit occurs 3 kilometres to the northwest and the Steep gold skarn area occurs immediately to the south. Rocks range from mafic to felsic volcanics and sediments, all of which show a strong penetrative foliation.

Twin A.R. 16989 REPORT YEAR: 1988, 53 Pages, 5 Map(s)

OPERATOR(S): **Esso Res. Can.**
AUTHOR(S): Heberlein, D.R.
MINING DIV: Kamloops
LOCATION: NTS 082M04W LAT. 51 07 50 LONG. 119 47 25
CLAIM(S): Twin 2-3
EXPL. TARGET: Silver,Zinc,Lead,Gold
WORK DONE: DIAD 558.7 m 4 hole(s);NQ - 5 Map(s); 1:5000,1:250
SAMP 48 sample(s);CU,PB,ZN,AG,AU,BA,AS
GEOLOGY: The property is underlain by Devono-Mississippian rocks of the Eagle Bay Formation. Lithologies consist of mafic volcanics overlain by graphitic argillites and wackes. Cherts are abundant at the contact. Weak sulphide mineralization at this horizon is interpreted to be equivalent to that at the Rea Gold deposit 3 kilometres to the northwest. The stratigraphy is folded into southwesterly overturned folds that are thrusted along axial planes.
MINFILE: 082M 020

Twin A.R. 16774 REPORT YEAR: 1987

OPERATOR(S): **Esso Min. Can.**
AUTHOR(S): Heberlein, D.R.
MINING DIV: Kamloops
LOCATION: NTS 082M04W LAT. 51 07 47 LONG. 119 48 08
CLAIM(S): Twin 2-3
WORK DONE: DIAD 1080.4 m 8 hole(s);NQ
SAMP 93 sample(s);CU,PB,ZN,AG,AU,BA,AS
GEOLOGY: The region is underlain by a Devonian-Mississippian volcanic and sedimentary assemblage collectively referred to as the Eagle Bay Formation. This overlies Devonian-Permian Fennell Formation mafic-felsic volcanics and sedimentary rocks. These formations have been intruded by quartz monzonite and granodiorite of Late Devonian-Cretaceous age. Tertiary olivine-basalts locally bury the Paleozoic stratigraphy.
RELATED A.R.: 01783, 02093, 08942, 09882, 11990, 13614, 15568

Wiki A.R. 16993 REPORT YEAR: 1988, 19 Pages, 2 Map(s)

OPERATOR(S): **Esso Res. Can.**
AUTHOR(S): Oliver, J.L. Marr, J.
MINING DIV: Kamloops
LOCATION: NTS 082M04W LAT. 51 13 12 LONG. 119 52 54
CLAIM(S): Wiki 3
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 148.4 m 1 hole(s); NQ - 2 Map(s); 1:5000,1:500
ROCK 7 sample(s);ME
GEOLOGY: A Devonian-Mississippian sequence of volcanic and sedimentary rocks is overlain by an outlier of Tertiary basalt.

No mineralization has been reported to date.
RELATED A.R.: 14613, 15485

Zeb A.R. 18182 REPORT YEAR: 1988, 10 Pages

OPERATOR(S): **Andria Res.**
AUTHOR(S): Pasieka, C.T.
MINING DIV: Kamloops
LOCATION: NTS 082M05E LAT. 51 22 00 LONG. 119 44 00
CLAIM(S): Zeb
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: EMGR 6.0 km;VLEM
LINE 6.0 km
GEOLOGY: The property is underlain by metasediments of the Shushwap Metamorphic Complex.

Adon A.R. 16939 REPORT YEAR: 1987, 48 Pages, 24 Map(s)

OPERATOR(S): **Golden Titan Res.**
AUTHOR(S): White, G.E.
MINING DIV: Kamloops
LOCATION: NTS 082M05W LAT. 51 18 00 LONG. 119 47 30
CLAIM(S): Sobs,Adon II,Adon V,Adon VIII,Rae
EXPL. TARGET: Gold
WORK DONE: EMGR 25.0 km;VLF - 4 Map(s); 1:2500
IPOL 30.0 km - 8 Map(s); 1:2500
MAGG 25.0 km - 2 Map(s); 1:2500
SOIL 498 sample(s);AU,CU,PB,ZN,AG - 10 Map(s); 1:2500
GEOLOGY: This section of the Adams Plateau is underlain by a metamorphosed assemblage of sedimentary and volcanic rocks of the Late Devonian to Early Mississippian Eagle Bay Formation that is dominated by a northwest trend of complex folding. The property

contains two showings, the Kayjun on the south side of East Barriere Lake and the NSM on the north side. The Kayjun is structurally controlled and dips to the east and consists of argentiferous lead and zinc. Pyrrhotite and chalcopyrite dominate the NSM mineralization which appears to be stratabound.

RELATED A.R.: 14392, 15483
MINFILE: 082M 058, 082M 223

Bar A.R. 16996 REPORT YEAR: 1988, 77 Pages, 5 Map(s)

OPERATOR(S): **Minnova**
AUTHOR(S): Gray, M.J. Pirie, I.D.
MINING DIV: Kamloops
LOCATION: NTS 082M05W, 092P08E LAT. 51 16 21 LONG. 120 00 00
CLAIM(S): SC 3,Anna 2,Anna 8,Bar 5,Bar 11
EXPL. TARGET: Copper,Zinc,Lead,Gold,Silver
WORK DONE: DIAD 829.3 m 8 hole(s);NQ
EMGR 36.5 km;HLEM - 5 Map(s); 1:2500
SAMP 282 sample(s);ME

GEOLOGY: The property is underlain by steeply dipping, northwest striking Devonian-Permian volcanic and sedimentary rocks of the Fennell Formation (SC and Anna Groups) and the Devono-Mississippian Eagle Bay Formation (Bar-B Group). Significant quartz-pyrite-sericite-albite alteration is associated with feldspar-quartz porphyry domes (Fennell Formation) and strong carbonate-sericite alteration in mafic volcanics (Eagle Bay Formation). Economic gold intersections have been intercepted in one feldspar-quartz porphyry dome.

MINFILE: 082M 218

Joe A.R. 16884 REPORT YEAR: 1987, 21 Pages, 1 Map(s)

OPERATOR(S): **Ovington, L.**
AUTHOR(S): Ovington, L. Elliott, B.
MINING DIV: Kamloops
LOCATION: NTS 082M05W LAT. 51 19 30 LONG. 119 58 30
CLAIM(S): Joe
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: ROCK 2 sample(s);ME
SOIL 120 sample(s);ME - 01 Map(s); 1:1000

GEOLOGY: A thrust fault is the contact between Eagle Bay sediments and Fennel Formation volcanics. In a broad area east of the contact the soil is anomalous in gold, arsenic, copper, silver, lead, zinc. Massive galena with values in gold, silver, antimony and zinc occurs in a quartz vein. Silicification and pyrite are present in a large zone.

MINFILE: 082M

SC 1 A.R. 17475 REPORT YEAR: 1988, 36 Pages, 7 Map(s)

OPERATOR(S): **Minnova**
AUTHOR(S): Pirie, I.D.
MINING DIV: Kamloops
LOCATION: NTS 082M05W, 092P08E LAT. 51 20 00 LONG. 120 00 00
CLAIM(S): SC 1
EXPL. TARGET: Copper,Gold,Silver
WORK DONE: EMGR 11.0 km;HELM - 2 Map(s); 1:2500
GEOL 100.0 ha - 1 Map(s); 1:2500
ROCK 26 sample(s);ME - 1 Map(s); 1:2500
SOIL 273 sample(s);ME - 3 Map(s); 1:2500

GEOLOGY: The property is underlain by a north/northwest trending steeply-dipping sequence of basalts, rhyolites and sediments belonging to the Fennell Formation. No mineralization is known at this time.

RELATED A.R.: 13667

Semco A.R. 17344 REPORT YEAR: 1988, 38 Pages, 9 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Shevchenko, G.
MINING DIV: Kamloops
LOCATION: NTS 082M05W LAT. 51 20 19 LONG. 119 54 33
CLAIM(S): Bluff 1-2,Bluff 4
EXPL. TARGET: Lead,Zinc,Silver,Copper
WORK DONE: LINE 4.7 km
ROTD 1054.0 m 9 hole(s) - 9 Map(s); 1:5000,1:250
SAMP 545 sample(s);CU,PB,ZN,AG,AU

GEOLOGY: The claims are underlain by southwest dipping felsic to intermediate volcanic, volcaniclastic and sedimentary rocks belonging to the Devono-Mississippian Eagle Bay Formation. Sericite and chlorite alteration along with silica flooding are associated with sulphide mineralization. Sphalerite and galena occur mainly as disseminations and occasionally as massive pods associated with pyrite and pyrrhotite.

MINFILE: 082M 219

White Rock A.R. 17739 REPORT YEAR: 1988, 13 Pages, 2 Map(s)

OPERATOR(S): **National Res. Ex.**
AUTHOR(S): Miller, D.C.
MINING DIV: Kamloops
LOCATION: NTS 082M05W LAT. 51 18 00 LONG. 119 54 00
CLAIM(S): White Rock 1-9
WORK DONE: GEOL 40.0 ha - 2 Map(s); 1:5000
LINE 32.0 km
ROAD 6.1 km

GEOLOGY: The property is underlain by the following Devonian-Mississippian (Eagle Bay Formation) sequence, which may be overturned: phyllite; argillite, quartzite, greenstone, chlorite schist. Mineralization occurs as galena-tetrahedrite-smithsonite pockets in quartz veins associated with fracture sets. Minor disseminated galena and pyrite occur in some greenstone beds.

MINFILE: 082M 066

Apati A.R. 17182 REPORT YEAR: 1988, 43 Pages, 9 Map(s)

OPERATOR(S): **Teck Ex.**
AUTHOR(S): Lovang, G. Betmanis, A.I.
MINING DIV: Kamloops
LOCATION: NTS 082M07E, 082M07W LAT. 51 21 01 LONG. 118 44 01
CLAIM(S): Apati 1-3,Mona 1-4
EXPL. TARGET: Niobium/Columbium,Rare Earths
WORK DONE: LINE 17.9 km
MAGG 17.9 km - 1 Map(s); 1:3030
ROAD 7.0 km
SAMP 282 sample(s);NB,LA,CE,YR - 5 Map(s); 1:3030,1:500,1:187
SCGR 15.4 km - 1 Map(s); 1:3030
SILT 89 sample(s);LA,NB,FL - 1 Map(s); 1:10 000
TREN 749.0 m 8 trench(es) - 1 Map(s); 1:300

GEOLOGY: A conformable carbonatite intrudes a sequence of biotite-hornblende gneiss and quartzite of the Shuswap Metamorphic Complex for an approximate strike length of 2.5 kilometres and thickness of 200 metres.
MINFILE: 082M 199

Downie A.R. 17026 REPORT YEAR: 1988, 28 Pages, 7 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Wild, C.J.
MINING DIV: Revelstoke
LOCATION: NTS 082M08W LAT. 51 26 48 LONG. 118 26 54
CLAIM(S): Key 1,Key 3
EXPL. TARGET: Copper,Zinc,Silver
WORK DONE: GEOL 506.0 ha - 1 Map(s); 1:5000
SOIL 382 sample(s);CU,ZN,PB,AG,AU - 6 Map(s); 1:5000
GEOLOGY: The claims are underlain by metasedimentary rocks of the Cambrian-Devonian Lardeau Group. Recumbent isoclinal folds, upright open folds, low angle shear zones and rapid facies changes are prevalent. Similar rocks host the Goldstream massive sulphide deposit 20 kilometres north of the property.
RELATED A.R.: 09721, 14351, 16089
MINFILE: 082M 088

Brewster Creek A.R. 17017 REPORT YEAR: 1988, 33 Pages, 12 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Wild, C.J. Bradish, L.
MINING DIV: Revelstoke
LOCATION: NTS 082M09W LAT. 51 37 00 LONG. 118 28 30
CLAIM(S): Brewster 1,Brewster 4
EXPL. TARGET: Copper,Lead,Zinc,Silver,Tungsten
WORK DONE: EMGR 7.3 km;SE88 - 1 Map(s); 1:5000
GEOL 300.0 ha - 2 Map(s); 1:25 000,1:5000
MAGG 13.9 km - 1 Map(s); 1:5000
ROCK 7 sample(s);CU,PB,ZN,AG,WO
SILT 5 sample(s);CU,PB,ZN,AG,WO
SOIL 585 sample(s);CU,PB,ZN,AG,WO - 8 Map(s); 1:5000
GEOLOGY: The area is underlain by metasedimentary rocks of the Lower Paleozoic Lardeau Group and intrusives of the Goldstream stock. Polyphase deformation is exhibited in complex fold patterns. The Goldstream Mine (copper, zinc, silver) is adjacent to the property.

Carbide A.R. 17515 REPORT YEAR: 1987, 33 Pages

OPERATOR(S): **Rennex Res.**
AUTHOR(S): LeBel, J.L. Floyd, A.
MINING DIV: Revelstoke
LOCATION: NTS 082M10E LAT. 51 32 29 LONG. 118 37 54
CLAIM(S): Carbide
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE: IPOL 8.2 km
ROCK 4 sample(s);PB,ZN,AG
GEOLOGY: The property is contained within a suite of gneiss and paragneiss of the Shuswap Metamorphic Complex. The detailed lithologies on the property consist of relatively undeformed pelites, quartzites, marble and carbonatite. Mineralization occurs at the top of the marble unit and consists of sphalerite, galena, pyrite and tetrahedrite. The main sulphide zone is up to 0.7 metres thick with an envelope of lesser sulphide up to several metres thick.
RELATED A.R.: 12092, 15991
MINFILE: 082M 150

Oro Viejo A.R. 18028 REPORT YEAR: 1988, 26 Pages, 1 Map(s)

OPERATOR(S): **Hurlburt, G.**
AUTHOR(S): Meyer, B.H. Hurlburt, G.
MINING DIV: Revelstoke
LOCATION: NTS 082M10E LAT. 51 40 00 LONG. 118 35 00
CLAIM(S): Oro Viejo 2,Oro Viejo 4
EXPL. TARGET: Dolomite
WORK DONE: GEOL 800.0 ha - 1 Map(s); 1:5000
ROCK 13 sample(s);ME
GEOLOGY: More than 300 million tonnes of high purity dolomite is present in the Lower Cambrian Badshot Formation about 100 kilometres north of Revelstoke, BC. Enclosing rocks include Proterozoic to Lower Paleozoic phyllites and slates of the Horsethief Creek, Hamill, and Lardeau Groups. The western contact of the Badshot Formation and Lardeau Group has many small pods and lenses of talc magnesite schist. Although highly deformed, the beds generally dip gently to the west or north.
RELATED A.R.: 16604
MINFILE: 082M

Birch A.R. 17555 REPORT YEAR: 1988, 30 Pages, 1 Map(s)

OPERATOR(S): **New Global Res.**
AUTHOR(S): Lennan, W.B.
MINING DIV: Kamloops
LOCATION: NTS 082M12W LAT. 51 31 45 LONG. 119 53 17
CLAIM(S): Birch 1-3
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: GEOL 400.0 ha - 1 Map(s); 1:5000
LINE 4.0 km
SILT 24 sample(s);AU,PB,ZN,AG
SOIL 33 sample(s);AU,PB,ZN,AG
GEOLOGY: The immediate claim area is underlain by Devonian-Mississippian rocks of the Eagle Bay Formation. The formation consists of rusty weathering greenish-grey feldspathic chlorite schists, chlorite schists, sericite schists, quartz-sericite schists and sericitic quartzites. The units comprise a relatively flat lying plate occurring as a north plunging synform. The apparent bedding strikes northeast at 045 degrees and dips 10 to 35 degrees to the northwest. Massive sulphide lenses occur within various schist units.
MINFILE: 082M 048

Foghorn A.R. 17328 REPORT YEAR: 1988, 46 Pages, 18 Map(s)

OPERATOR(S): **Gold Spring Res.**
AUTHOR(S): Christopher, P.A.
MINING DIV: Kamloops
LOCATION: NTS 082M12W LAT. 51 31 54 LONG. 119 57 39
CLAIM(S): Foghorn 1-5
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold
WORK DONE: EMGR 60.0 km;VLF - 4 Map(s); 1:5000
LINE 60.0 km
MAGG 60.0 km - 4 Map(s); 1:5000

ROCK 12 sample(s);ME
SOIL 510 sample(s);ME - 10 Map(s); 1:5000

GEOLOGY: The property is situated near the boundary of the Intermontane and Omineca Tectonic belts. The region is mainly underlain by a metamorphosed assemblage of sedimentary and volcanic rocks that range in age from Devonian through Permian age. Devonian-Permian Fennell Formation rocks are mainly mafic volcanics and related sedimentary rocks. Devonian-Mississippian Eagle Bay Formation rocks represent an Island Arc assemblage. Pyrite, chalcopyrite and pyrrhotite occur as massive to semi-massive layers in schists while argentiferous galena, sphalerite, chalcopyrite and pyrite occur in quartz veins.

MINFILE: 082M 029, 082M 040, 082M 108

Hail Harper Creek A.R. 17650 REPORT YEAR: 1988, 180 Pages

OPERATOR(S): **Aurum Mines**
AUTHOR(S): Kaiser, P.B.
MINING DIV: Kamloops
LOCATION: NTS 082M12W LAT. 51 31 10 LONG. 119 49 00
CLAIM(S): Hail,Judy,Beth,Goof,Sue,Harp,Bob
WORK DONE: GEOL

GEOLOGY: The deposit lies just north of the Cretaceous Baldy Batholith and within metasediments and metavolcanics of the Devonian Eagle Bay Formation. Copper mineralization is confined to tabular-shaped zones within quartz-sericite phyllites and lesser amounts of quartzite. Chaclopyrite occurs as disseminations and patches along foliations, in steeply dipping north striking fractures, within quartz and quartz-carbonate veins and with massive pyrite-pyrrhotite. Sphalerite, galena, arsenopyrite, molybdenite, tentrahedrite-tennanite, bornite, and cubanite are present in minor quantities. Magnetite occurs locally as massive lenses containing minor chalcopyrite.

Reserves in the East zone are estimated at 42,500,000 tonnes grading 0.39 per cent copper, 0.043 grams per tonne gold and 2.4 grams per tonne silver. The West zone contains an estimated 53,500,000 tonnes grading 0.42 per cent copper, 0.047 grams per tonne gold and 2.6 grams per tonne silver.

MINFILE: 082M 009

MC A.R. 17782 REPORT YEAR: 1988, 44 Pages, 5 Map(s)

OPERATOR(S): **Lucero Res.**
AUTHOR(S): Dawson, J.M.
MINING DIV: Kamloops
LOCATION: NTS 082M12W LAT. 51 33 31 LONG. 119 58 30
CLAIM(S): MC 1
WORK DONE: SOIL 470 sample(s);CU,PB,ZN,AG,AS - 5 Map(s); 1:2000

GEOLOGY: The property is underlain predominantly by weakly metamorphosed sedimentary and volcanic rocks of the Devonian-Permian Fennell Formation. In the southwestern corner of the claim block these rocks are interpreted to be in fault contact with Devonian-Mississippian Eagle Bay Formation rocks.

Tia A.R. 16482 REPORT YEAR: 1987, 25 Pages, 1 Map(s)

OPERATOR(S): **Ru Crown Res.**
AUTHOR(S): Cartwright, P. Cormier, M.
MINING DIV: Kamloops
LOCATION: NTS 082M12W LAT. 51 33 22 LONG. 119 50 12
CLAIM(S): Tia 1-2
EXPL. TARGET: Lead,Zinc,Copper,Silver
WORK DONE: IPOL 5.9 km - 1 Map(s); 1:10 000
LINE 10.5 km

GEOLOGY: The property is underlain by rocks of the Devonian-Mississippian Eagle Bay Formation which is comprised of a strongly deformed volcano-sedimentary package that has been regionally metamorphosed to lower greenschist facies. The rocks consist of intermediate-felsic fragmental volcanics with lesser amounts of intercalated sediments.

MINFILE: 082M 239

Tia A.R. 17035 REPORT YEAR: 1988, 53 Pages, 1 Map(s)

OPERATOR(S): **Ru Crown Res.**
AUTHOR(S): Belik, G.
MINING DIV: Kamloops
LOCATION: NTS 082M12W LAT. 51 33 22 LONG. 119 50 12
CLAIM(S): Tia 1
EXPL. TARGET: Lead,Zinc,Copper,Barium/Barite
WORK DONE: DIAD 476.4 m 5 hole(s); BQ - 1 Map(s); 1:10 000
SAMP 54 sample(s);PB,ZN,AU,AG,BA

GEOLOGY: Basaltic to rhyolitic flows and tuffs of probable Paleozoic age host stratabound zones of low-grade lead, zinc, copper barium mineralization, 0.39 metres to 30 metres wide. The mineralization, which is associated with broad zones of moderate to strong sericite alteration, occurs along to northern flank of a coarse pyroclastic sequence.

RELATED A.R.: 16482
MINFILE: 082M 239

Water A.R. 17188 REPORT YEAR: 1988, 201 Pages, 11 Map(s)

OPERATOR(S): **BP Res. Can.**
AUTHOR(S): Hoffman, S.J. Farmer, R.
MINING DIV: Kamloops
LOCATION: NTS 082M12W, 092P09E LAT. 51 37 42 LONG. 119 59 39
CLAIM(S): Water 6-9
EXPL. TARGET: Copper,Gold
WORK DONE: DIAD 685.0 m 5 hole(s);NQ - 7 Map(s); 1:200
GEOL 700.0 ha - 3 Map(s); 1:5000,1:1000,1:500
PETR 14 sample(s)
ROCK 53 sample(s);ME
SAMP 259 sample(s);ME
SOIL 58 sample(s);ME - 1 Map(s); 1:5000
TOPO 1500.0 ha

GEOLOGY: The claims are underlain by a north-northwest striking, gently south-southwest dipping sequence of mafic to felsic volcanics and sediments of the Devonian-Mississippian Eagle Bay Formation. Copper and minor gold are associated with a metamorphosed (kyanite, andalusite-rich) hydrothermal alteration zone.

RELATED A.R.: 06862, 07575, 14485
MINFILE: 082M 159

CK A.R. 17539 REPORT YEAR: 1988, 326 Pages, 64 Map(s)

OPERATOR(S): **Rea Gold Verdstone Gold**
AUTHOR(S): Oliver, J.L.

SEYMOUR ARM 082M

MINING DIV: Kamloops
LOCATION: NTS 082M13E LAT. 51 55 00 LONG. 119 35 00
CLAIM(S): CK 1-4
EXPL. TARGET: Copper,Lead,Zinc,Silver
WORK DONE: DIAD 6975.0 m 84 hole(s);NQ - 59 Map(s); 1:500
GEOL 1350.0 ha - 2 Map(s); 1:5000
LINE 66.0 km
SAMP 435 sample(s);CU,PB,ZN,AG
SOIL 1269 sample(s);CU,PB,ZN,AG - 3 Map(s); 1:5000
GEOLOGY: The property is underlain by a strongly foliated and lineated assemblage of metasedimentary gneiss, schist and marble, belonging to the Shuswap Metamorphic Complex. Numerous dykes and sills of pegmatite intrude the metasedimentary rocks. The strata trend north and dip mainly eastward. Stratiform sphalerite, galena, pyrrhotite and/or pyrite occur within a continuous sulphide-bearing horizon which has been traced for 20 kilometres. There are twelve known showings of zinc, lead and silver mineralization.
RELATED A.R.: 05189, 05192, 05471, 05613, 05631, 06756, 06909, 07213, 07299, 07423, 07644, 08317, 09011, 1603
MINFILE: 082M 137, 082M 224, 082M 225, 082M 226, 082M 227, 082M 228, 082M

Rift A.R. 17990 REPORT YEAR: 1988, 46 Pages, 3 Map(s)

OPERATOR(S): **E & B Ex.**
AUTHOR(S): Crooker, G.F.
MINING DIV: Revelstoke
LOCATION: NTS 082M15E LAT. 51 52 00 LONG. 118 33 00
CLAIM(S): Rift,Mica 12-13,Mica 53
EXPL. TARGET: Zinc,Lead,Copper,Silver
WORK DONE: GEOL 600.0 ha - 1 Map(s); 1:10 000
LINE 33.3 km
SOIL 1250 sample(s);ME - 2 Map(s); 1:5000
GEOLOGY: Pelitic metasedimentary rocks of Lower Paleozoic(?) age are hosts to stratiform lead-zinc-copper-silver massive sulphide mineralization on the Rift and Mica 12 claims.
RELATED A.R.: 04638, 10989, 11766, 13280, 14163
MINFILE: 082M 190

GOLDEN 082N

Silver A.R. 17582 REPORT YEAR: 1988, 31 Pages, 1 Map(s)

OPERATOR(S): **Trans-Arctic Ex.**
AUTHOR(S): Dodd, E.A.
MINING DIV: Revelstoke
LOCATION: NTS 082N04E LAT. 51 04 49 LONG. 117 34 53
CLAIM(S): Silver 1
EXPL. TARGET: Silver,Lead,Zinc
WORK DONE: GEOL 150.0 ha - 1 Map(s); 1:5000,1:4000,1:500,1:200
ROCK 27 sample(s);CU,PB,ZN,AU,AG
GEOLOGY: High grade silver-lead-zinc mineralization occurs in sediments near their contact with a younger biotite granite intrusion.
RELATED A.R.: 13813
MINFILE: 082N 032, 082N 033, 082N 034, 082N 035

Allco A.R. 16907 REPORT YEAR: 1988, 37 Pages, 10 Map(s)

OPERATOR(S): **Gunsteel Res.**
AUTHOR(S): Brownlee, D.J. Allen, D.G.
MINING DIV: Revelstoke
LOCATION: NTS 082N04W LAT. 51 13 00 LONG. 117 59 00
CLAIM(S): Midas 1-7,Limestone Dyke 1-8,Limestone Dkye,Limestone Fr.
EXPL. TARGET: Silver,Copper,Lead,Zinc,Molybdenum/Molybdenite,Gold
WORK DONE: GEOL 500.0 ha - 3 Map(s); 1:5000,1:1000
ROAD 6.5 km
ROCK 37 sample(s);AU,AG,CU,PB,ZN
SOIL 152 sample(s);ME - 7 Map(s); 1:5000
GEOLOGY: Massive lead-zinc-silver veins and pods occur in and along a fault contact between Cambrian Badshot Formation limestone and Lardeau Group argillite.
RELATED A.R.: 12041, 13288, 14403, 15559
MINFILE: 082N 016

Ram A.R. 18053 REPORT YEAR: 1988, 32 Pages, 2 Map(s)

OPERATOR(S): **Gagne, B.**
AUTHOR(S): Gale, R.E.
MINING DIV: Golden
LOCATION: NTS 082N11W LAT. 51 40 30 LONG. 117 21 00
CLAIM(S): Dispute,Grizzly
WORK DONE: GEOL 50.0 ha - 1 Map(s); 1:3000
ROCK 36 sample(s);CU,PB,ZN
SOIL 84 sample(s);CU,PB,ZN,AU - 1 Map(s); 1:1000
GEOLOGY: Two zones of quartz veins carrying traces of tetrahedrite and galena are present in northwest and north trending shear zones in strongly folded and fractured argillaceous limestone of the Middle Cambrian Chancellor Formation. In the south zone 150 metres long on the Dispute claim, the veins are up to 0.6 metres wide and look barren. In a tunnel on the north zone on the Grizzly claim the vein is up to 1 metre wide and open to extension.
RELATED A.R.: 09745, 10954, 11908, 16459
MINFILE: 082N 086

Mike A.R. 17303 REPORT YEAR: 1988, 102 Pages

OPERATOR(S): **Aar Res.**
AUTHOR(S): Suggitt, J.C.
MINING DIV: Golden
LOCATION: NTS 082N14E, 082N15W LAT. 51 49 10 LONG. 117 00 36
CLAIM(S): Mike 1
EXPL. TARGET: Diamond
WORK DONE: HMIN 5 sample(s);ME
META 1 sample(s)
GEOLOGY: A series of diatremes intrude bedded carbonate and argillaceous sediments of Middle-Upper Cambrian to Ordovician age. Vertical pipes include large amounts of rock fragments.
RELATED A.R.: 14748

Mark A.R. 17753 REPORT YEAR: 1988, 32 Pages

OPERATOR(S): **Dia Met Min.**
AUTHOR(S): Fipke, C.E.
MINING DIV: Golden
LOCATION: NTS 082N15W LAT. 51 47 00 LONG. 116 58 00
CLAIM(S): Mark I-II,Sheila I,Bill I
EXPL. TARGET: Diamond
WORK DONE: GEOL 250.0 ha

PETR 31 sample(s)
SAMP 1 sample(s)

GEOLOGY: At least 8 diatremes have been identified intruding north-northeast folded Paleozoic marine sediments.

A single micro diamond and numerous diamond indicator minerals have been identified in diatreme rock and stream sediment samples from the claims.

RELATED A.R.: 13596, 15151
MINFILE: 082N 089

BRAZEAU 083C

Larry A.R. 17752 REPORT YEAR: 1988, 13 Pages

OPERATOR(S): **C.F. Min. Research**
AUTHOR(S): Fipke, C.E.
MINING DIV: Golden
LOCATION: NTS 083C03W LAT. 52 04 23 LONG. 117 23 35
CLAIM(S): Larry 1
EXPL. TARGET: Diamond
WORK DONE: SAMP 2 sample(s);DI,ME
GEOLOGY: A diatreme dyke-pipe swarm and an additional diatreme containing diamond indicator minerals intrude gentley folded Ordovician to Cambrian marine sediments.
RELATED A.R.: 13659

CANOE RIVER 083D

Cariboo A.R. 17320 REPORT YEAR: 1988, 28 Pages, 4 Map(s)

OPERATOR(S): **Trio Gold**
AUTHOR(S): Hewgill, W.
MINING DIV: Cariboo
LOCATION: NTS 083D11E LAT. 52 40 17 LONG. 119 10 59
CLAIM(S): Cariboo 1-2
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: ROCK 9 sample(s);AU,AG,CU
SILT 1 sample(s);AU,AG,CU
SOIL 81 sample(s);AU,AG,CU - 4 Map(s); 1:5000
GEOLOGY: The property is underlain by metamorphosed sedimentary rocks of the Malton Gneiss of possible Precambrian age. The rocks are folded along a northwest trending axis with dips to the south. Several phases of folding are believed to have occurred and this generalization may be simply the last phase.

Dove A.R. 17427 REPORT YEAR: 1988, 131 Pages, 9 Map(s)

OPERATOR(S): **Redbird Gold**
AUTHOR(S): Levson, V. Roed, M.A.
MINING DIV: Kamloops
LOCATION: NTS 083D11E LAT. 52 37 19 LONG. 119 07 26
CLAIM(S): Ingrid 1-4,Dove 3-4
EXPL. TARGET: Gold,Copper,Silver
WORK DONE: DIAD 283.0 m 14 hole(s);BQ EWT - 2 Map(s); 1:250,1:100
GEOL 350.0 ha - 4 Map(s); 1:5000,1:400,1:100,1:50
LINE 60.0 km
MAGG 60.0 km - 1 Map(s); 1:5000
META 2 sample(s)
ROAD 2.0 km
SAMP 172 sample(s);CU,AU,AG
SOIL 1100 sample(s);AU,CU - 1 Map(s); 1:5000
TOPO 2.9 ha - 1 Map(s); 1:400
GEOLOGY: Native gold and bornite mineralization occurs along fractures, foliation surfaces and in quartz veins associated with hornblende gneiss and biotite and muscovite schist in an inlier of Proterozoic Horsethief Creek Group rocks which occur within the Malton Gneiss. Regional structure is an isoclinally folded sequence of complex origin. Locally the strata dips 20 to 40 degrees to the south and strikes easterly over an extensive area.
RELATED A.R.: 07597, 12010, 15984
MINFILE: 083D

Expo A.R. 17321 REPORT YEAR: 1988, 26 Pages, 2 Map(s)

OPERATOR(S): **Trio Gold**
AUTHOR(S): Hewgill, W.
MINING DIV: Kamloops
LOCATION: NTS 083D11E LAT. 52 36 11 LONG. 119 06 18
CLAIM(S): Expo 2
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: LINE 1.7 km
SILT 8 sample(s);AU,AG,CU
SOIL 53 sample(s);AU,AG,CU - 2 Map(s); 1:5000,1:2000
GEOLOGY: The claims are underlain by metamorphosed sedimentary rocks of the Malton Gneiss of possible Precambrian age. The area appears to be folded along a northwest trending axis and dipping to the south. Several phases of folding have resulted in complex geology.
RELATED A.R.: 15916

Tunnel Hill A.R. 17540 REPORT YEAR: 1988, 11 Pages, 1 Map(s)

OPERATOR(S): **Redwood Res.**

AUTHOR(S): McLeod, J.W.

MINING DIV: Victoria

LOCATION: NTS 092B05E, 092B12E LAT. 48 31 00 LONG. 123 34 00

CLAIM(S): Tunnel Hill I,Tunnel Hill III,Tunnel Hill V,Tunnel Hill VII

EXPL. TARGET: Copper,Zinc

WORK DONE: GEOL 300.0 ha - 1 Map(s); 1:12 500

GEOLOGY: The claims are underlain by intercalated sediments and volcanics of Triassic to Cretaceous age and intrusive rocks which are thought to range in age from Paleozoic to younger. Weak chlorite-sericite alteration occurs in places. Mineralization observed was pyrrhotite, pyrite, magnetite and very minor chalcopyrite. Some fault or shear zones observed carrying quartz and possibly anomalous copper and zinc values.

RELATED A.R.: 15088, 16166

MINFILE: 092B 121

Jordan Gold A.R. 17949 REPORT YEAR: 1988, 21 Pages, 1 Map(s)

OPERATOR(S): **Valentine Gold**

AUTHOR(S): Mazacek, P.

MINING DIV: Victoria

LOCATION: NTS 092B05W, 092B12W LAT. 48 30 00 LONG. 123 54 00

CLAIM(S): Jordan Gold 1-3

EXPL. TARGET: Gold

WORK DONE: GEOL 950.0 ha - 1 Map(s); 1:5000
ROCK 36 sample(s);ME
TOPO 6000.0 ha

GEOLOGY: The Jordan claims straddle the Leech River Fault, which separates the Leech River metasedimentary rocks to the north from Metchosin volcanics to the south. Results of the geochemical survey were low.

RELATED A.R.: 06298, 06844, 09050, 10110, 12642, 15509, 17259

Saltspring Island A.R. 17186 REPORT YEAR: 1988, 14 Pages, 10 Map(s)

OPERATOR(S): **Kidd Creek Mines**

AUTHOR(S): Hendrickson, G.A.

MINING DIV: Victoria

LOCATION: NTS 092B11W, 092B14W LAT. 48 45 13 LONG. 123 28 09

CLAIM(S): Salt 1,Bruce 1-2,Musgrave II

EXPL. TARGET: Gold,Iron,Manganese

WORK DONE: IPOL 20.0 km - 6 Map(s); 1:5000
TOPO 3600.0 ha - 4 Map(s); 1:5000

GEOLOGY: The claims are underlain by Paleozoic Sicker Group Myra Formation rocks.

RELATED A.R.: 13375, 13996

MINFILE: 092B 074

Bear A.R. 17659 REPORT YEAR: 1988, 24 Pages

OPERATOR(S): **Milwarde-Yates, D.**

AUTHOR(S): Milwarde-Yates, D.

MINING DIV: Victoria

LOCATION: NTS 092B12W LAT. 48 36 00 LONG. 123 58 00

CLAIM(S): Bear

EXPL. TARGET: Gold,Tungsten

WORK DONE: EMGR 3.3 km; VLF

GEOLOGY: Basaltic to rhyolitic tuffs, breccia and flows of the Bonanza Group of Lower to Middle Jurassic age lie to the north of the San Juan Fault. The Leech River complex, consisting of metamorphosed sedimentary and volcanic rocks, sandstone, schists and minor volcanic rocks of Late Jurassic to Cretaceous age lie to the south of the San Juan Fault. Minor amounts of scheelite and placer gold are present in this area.

RELATED A.R.: 15954

Blue Jay A.R. 17998 REPORT YEAR: 1988, 47 Pages

OPERATOR(S): **Milwarde-Yates, D.**

AUTHOR(S): Milwarde-Yates, D.

MINING DIV: Victoria

LOCATION: NTS 092B12W LAT. 48 32 30 LONG. 123 50 00

CLAIM(S): Blue Jay

WORK DONE: EMGR 19.4 km;VLF

GEOLOGY: The property is underlain by the Leech River Complex which consists of metamorphosed pelites, schists, sandstones and volcanic rocks of Late Jurassic to Cretaceous age. Lithologic types present in the general area include amphibolites, metasandstones, metapelites and phyllites.

Jordan River A.R. 16818 REPORT YEAR: 1987, 12 Pages

OPERATOR(S): **Valentine Gold**

AUTHOR(S): Demczuk, L.

MINING DIV: Victoria

LOCATION: NTS 092B12W LAT. 48 31 34 LONG. 123 56 13

CLAIM(S): Placer Leases 8149-8152,Placer Leases 8161-8163,Placer Lease 8400,Placer Leases 10844-10845

EXPL. TARGET: Gold

WORK DONE: HMIN 37 sample(s);ME

GEOLOGY: Stream sediment sampling has returned anomalous gold values. High gold values from the central part of the Jordan River are related to arsenopyrite/gold showings on the upper slopes above the Jordan River.

Lenny A.R. 18000 REPORT YEAR: 1988, 24 Pages

OPERATOR(S): **Milwarde-Yates, D.**

AUTHOR(S): Milwarde-Yates, D.

MINING DIV: Victoria

LOCATION: NTS 092B12W LAT. 48 36 00 LONG. 123 58 00

CLAIM(S): Lenny 2

WORK DONE: EMGR 2.8 km;VLF

GEOLOGY: The property is underlain by basaltic to rhyolitic tuffs, breccia and flows of the Lower to Middle Jurassic Bonanza Group which lie to the north of the San Juan fault.

RELATED A.R.: 17999

Lusty A.R. 17779 REPORT YEAR: 1988, 73 Pages, 12 Map(s)

OPERATOR(S): **Butter Rock Res.**
AUTHOR(S): Cukor, V.
MINING DIV: Victoria
LOCATION: NTS 092B12W, 092C09E LAT. 48 34 57 LONG. 123 55 44
CLAIM(S): Lusty,Valiant,3 X 3
EXPL. TARGET: Gold
WORK DONE: EMGR 47.0 km;VLF - 4 Map(s); 1:5000
GEOL 1025.0 ha - 2 Map(s); 1:5000
LINE 47.0 km
MAGG 47.0 km - 2 Map(s); 1:5000
SOIL 600 sample(s);AU,AG - 4 Map(s); 1:5000
GEOLOGY: The properties are located on the San Juan fault and underlain by Triassic-Cretaceous Leech River Complex rocks. On the 3 X 3 claim a gold geochemical anomaly is associated with a silicified zone. On the Lusty and Valiant claims, gold-silver values occur in silicified stringers within graphitic schist.
MINFILE: 092C

Survey A.R. 17678 REPORT YEAR: 1988, 25 Pages

OPERATOR(S): **Boitard, C.**
AUTHOR(S): LaRue, J.P.
MINING DIV: Victoria
LOCATION: NTS 092B12W LAT. 48 33 21 LONG. 123 48 21
CLAIM(S): Survey
WORK DONE: LINE 1.5 km
SOIL 76 sample(s);ME
GEOLOGY: The property is underlain by the Triassic-Cretaceous Leech River Complex mainly composed of slaty and quartzose schist. About 2 to 2.5 kilometres to the east is a large mass of Upper Cretaceous Coast Plutonic Complex rocks consisting of granodiorite, quartz diorite, diorite, gabbro, granite and gneissic equivalents.

Tiffany A.R. 17999 REPORT YEAR: 1988

OPERATOR(S): **Milwarde-Yates, D.**
AUTHOR(S): Milwarde-Yates, D.
MINING DIV: Victoria
LOCATION: NTS 092B12W LAT. 48 36 00 LONG. 123 58 00
CLAIM(S): Tiffany
WORK DONE: EMGR 2.6 km;VLF
GEOLOGY: Basaltic to rhyolitic tuffs, breccia and flows of the Bonanza Group of Lower to Middle Jurassic age lie to the north of the San Juan fault which cuts the property. The Leech River complex, consisting of metamorphosed sedimentary and volcanic rocks, sandstone, schists and minor volcanic rocks of Late Jurassic to Cretaceous age lie to the south of the San Juan fault.

VG A.R. 17950 REPORT YEAR: 1988, 96 Pages, 11 Map(s)

OPERATOR(S): **Valentine Gold**
AUTHOR(S): Mazacek, P.
MINING DIV: Victoria
LOCATION: NTS 092B12W LAT. 48 33 00 LONG. 123 56 00
CLAIM(S): VG 1-3,Val
EXPL. TARGET: Gold
WORK DONE: EMAB 38.0 km;VLF - 6 Map(s); 1:10 000
GEOL 875.0 ha - 3 Map(s); 1:5000,1:50 000
MAGA 38.0 km - 2 Map(s); 1:10 000
ROCK 35 sample(s);ME
GEOLOGY: All of the VG Group of claims is underlain by Leech River metasedimentary rocks. Some of the metasandstone is silicified with secondary swarms of quartz veinlets and sweats parallel to bedding. The quartz is devoid of sulphides other than minor pyrite. Arsenic values are generally low.
RELATED A.R.: 16165

Valentine Mountain A.R. 17259 REPORT YEAR: 1988, 628 Pages, 10 Map(s)

OPERATOR(S): **Valentine Gold**
AUTHOR(S): Mazacek, P.
MINING DIV: Victoria
LOCATION: NTS 092B12W LAT. 48 31 00 LONG. 123 53 00
CLAIM(S): Jordan Gold,BPEX,PC,Val,Blaze,Doran,Luster
EXPL. TARGET: Gold
WORK DONE: DIAD 1837.0 m 22 hole(s); HQ
GEOL 15000.0 ha - 2 Map(s); 1:20 000,1:250
LINE 40.0 km
META
ROCK 237 sample(s);ME - 1 Map(s); 1:20 000
SAMP 1837 sample(s);AU
SILT 113 sample(s);AU,AS,CU,PB,SB,WO - 1 Map(s); 1:20 000
SOIL 4233 sample(s);ME - 6 Map(s); 1:20 000,1:2000
GEOLOGY: Metamorphosed pelitic sedimentary rocks and volcanic rocks of the Leech River Formation are occasionally cut by granodiorite dykes. The rocks trend east-west with sub-vertical dips. Mineralization in the Discovery Zone consists of sub-parallel, narrow quartz veins in which pockets of native gold are present with minor sulphides, especially arsenopyrite.
RELATED A.R.: 06298, 06844, 09050, 10110, 12642, 15509
MINFILE: 092B 108, 092B 111, 092B 115

Valentine-Survey Mountain A.R. 17381 REPORT YEAR: 1988, 190 Pages, 7 Map(s)

OPERATOR(S): **Valentine Gold**
AUTHOR(S): Mazacek, P.
MINING DIV: Victoria
LOCATION: NTS 092B12W, 092C09E LAT. 48 31 38 LONG. 123 57 40
CLAIM(S): FRS 9-12,Wolf 1-8,Heart 6-11,Leech 1-3,Bo 1-4,Heart 4A,West 1-3,Peg 1-6,Bpex 8,Bpex 10,VG 1-3, Val,Au 2-3,Doran 3-4,Doran 6
EXPL. TARGET: Gold
WORK DONE: LINE 25.6 km
ROCK 240 sample(s);ME - 2 Map(s); 1:20 000
SILT 299 sample(s);ME - 1 Map(s); 1:20 000
SOIL 1700 sample(s);ME - 4 Map(s); 1:20 000,1:5000
GEOLOGY: The claims are underlain by Jurassic metasediments and metavolcanics. Vein type and disseminated gold mineralization occurs.
RELATED A.R.: 16169
MINFILE: 092B 108

Wolf A.R. 17690 REPORT YEAR: 1988, 30 Pages, 3 Map(s)

OPERATOR(S): **Tri-Pacific Res.**
AUTHOR(S): Demczuk, L.
MINING DIV: Victoria
LOCATION: NTS 092B12W LAT. 48 38 00 LONG. 123 58 30
CLAIM(S): Wolf
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc,Nickel
WORK DONE: GEOL 200.0 ha - 1 Map(s); 1:6250
ROCK 31 sample(s);AU,AS,PB,ZN,NI,CU - 1 Map(s); 1:6250
SILT 34 sample(s);AU,AS,CU,PB,ZN,NI - 1 Map(s); 1:6250
GEOLOGY: The Wolf claim block lies within the San Juan Fault tectonic belt of basaltic to andesitic rocks of the Jurassic Bonanza Group. Slightly anomalous gold values were recorded in the southeast portion of the Wolf claim group. An anomalous concentration of precious and base metals was recognized in the central east part of the property.

West A.R. 17007 REPORT YEAR: 1988, 245 Pages

OPERATOR(S): **Falconbridge**
AUTHOR(S): Money, D.P. Pattison, J.M.
MINING DIV: Victoria
LOCATION: NTS 092B13E LAT. 48 52 00 LONG. 123 40 00
CLAIM(S): West 1-2
EXPL. TARGET: Copper,Zinc
WORK DONE: DIAD 3170.7 m 10 hole(s);NQ
SAMP 1705 sample(s);ME
GEOLOGY: The property is underlain by Devonian andesitic to rhyolitic volcanic, volcaniclastic, intrusive and sedimentary rocks of the Sicker Group and by gabbros of the Upper Triassic Karmutsen Formation. Mineralization consists of disseminated and massive pyrite, chalcopyrite, pyrrhotite and sphalerite in the Sicker Group rocks.
RELATED A.R.: 11433, 13532, 13853
MINFILE: 092B 096

Canamera A.R. 16871 REPORT YEAR: 1987, 21 Pages, 1 Map(s)

OPERATOR(S): **Minnova**
AUTHOR(S): Wells, G.S.
MINING DIV: Victoria
LOCATION: NTS 092B13W LAT. 48 52 09 LONG. 123 48 38
CLAIM(S): Copper Canyon
EXPL. TARGET: Copper,Zinc,Silver,Gold
WORK DONE: DIAD 175.6 m 1 hole(s);NQ - 1 Map(s); 1:2500
GEOLOGY: The property is underlain primarily by intermediate-felsic volcanic tuffs and ash tuffs belonging to the Upper Devonian Myra Formation of the Paleozoic Sicker Group. Two mineralized showings, Copper Canyon and Victoria, are characterized by quartz-pyrite-chalcopyrite stringers.
MINFILE: 092B 086

Canamera A.R. 17836 REPORT YEAR: 1988, 20 Pages, 1 Map(s)

OPERATOR(S): **Minnova**
AUTHOR(S): Wells, G.S.
MINING DIV: Victoria
LOCATION: NTS 092B13W LAT. 48 52 12 LONG. 123 48 24
CLAIM(S): Victoria
EXPL. TARGET: Copper,Zinc,Silver,Gold
WORK DONE: DIAD 150.9 m 1 hole(s);NQ - 1 Map(s); 1:2500
GEOLOGY: The property is underlain primarily by intermediate to felsic tuffs and ashes belonging to the Myra Formation of the Paleozoic Sicker Group. Two mineralized showings, Copper Canyon and Victoria, are characterized by quartz-pyrite-chalcopyrite stringers. The property occurs along strike from Abermin's polymetallic massive sulphide Coronation zone.
RELATED A.R.: 16871
MINFILE: 092B 004

Chemainus A.R. 16825 REPORT YEAR: 1987, 172 Pages, 7 Map(s)

OPERATOR(S): **Kidd Creek Mines**
AUTHOR(S): Enns, S. Pattison, J.M.
MINING DIV: Victoria
LOCATION: NTS 092B13W LAT. 48 53 48 LONG. 123 56 02
CLAIM(S): Chip 1
EXPL. TARGET: Copper,Zinc
WORK DONE: DIAD 3366.0 m 9 hole(s);NQ - 7 Map(s); 1:2000,1:1000
SAMP 683 sample(s);ME
GEOLOGY: The claims are underlain by Devonian(?) felsic tuffs and mafic volcanics which comprise a volcanic belt flanked by marine clastic and cherty sediments. Felsic crystal tuffs host conformable massive polymetallic sulphides near the mafic volcanic contact. An old shaft (Anita showing) was driven on a massive pyrrhotite lens in the early 1900's. Barium enrichment and Na2O depletion characterize the alteration.
MINFILE: 092B

Chemainus A.R. 17649 REPORT YEAR: 1988, 48 Pages, 3 Map(s)

OPERATOR(S): **Falconbridge Esso Res. Can.**
AUTHOR(S): Clemmer, S.G.
MINING DIV: Victoria
LOCATION: NTS 092B13W LAT. 48 53 00 LONG. 123 50 00
CLAIM(S): Holyoak 2
EXPL. TARGET: Copper,Zinc
WORK DONE: DIAD 195.1 m 1 hole(s) - 3 Map(s); 1:1000,1:5000,1:20 000
SAMP 44 sample(s);ME
GEOLOGY: The property is underlain by felsic to mafic volcanic rocks and sediments of the Sicker Group. Similar rocks on the adjacent to claim host the LARA polymetallic mineralization.

Chemainus A.R. 16710 REPORT YEAR: 1987

OPERATOR(S): **Kidd Creek Mines**
AUTHOR(S): Enns, S. Pattison, J.M.
MINING DIV: Victoria
LOCATION: NTS 092B13W LAT. 48 53 48 LONG. 123 56 02
CLAIM(S): Chip 1,Chip 12 Fr.
WORK DONE: DIAD 3366.0 m 9 hole(s);NQ
SAMP 683 sample(s);ME
GEOLOGY: The volcanic stratigraphy of the Chip 1 claim is comprised of a steep north dipping, felsic-mafic volcaniclastic succession, the south portion of which contains mineralization and which appears to be an overturned sequence.

RELATED A.R.: 14712

Gold Tusk A.R. 17231 REPORT YEAR: 1988, 38 Pages, 1 Map(s)

OPERATOR(S): **Int. Cherokee Dev.**
AUTHOR(S): Allen, G.J.
MINING DIV: Victoria
LOCATION: NTS 092B13W LAT. 48 50 41 LONG. 123 55 30
CLAIM(S): Gold Tusk
WORK DONE: GEOL 400.0 ha - 1 Map(s); 1:10 000
ROCK 9 sample(s);ME
SILT 5 sample(s);ME
GEOLOGY: The majority of the claim is underlain by a northwest striking, moderately northeast dipping sequence of shale, siltstone, sandstone and conglomerate of the Upper Cretaceous Nanaimo Group.

Hall A.R. 17351 REPORT YEAR: 1988, 128 Pages, 17 Map(s)

OPERATOR(S): **Avondale Res.**
AUTHOR(S): Hawkins, T.G.
MINING DIV: Nanaimo
LOCATION: NTS 092B13W LAT. 48 55 28 LONG. 123 52 54
CLAIM(S): Orn 1-4
EXPL. TARGET: Gold,Silver,Copper,Palladium
WORK DONE: EMGR 10.5 km;VLF - 4 Map(s); 1:2500
GEOL 2010.0 ha - 5 Map(s); 1:10 000,1:2500
LINE 10.5 km
MAGG 10.5 km - 2 Map(s); 1:2500
ROCK 75 sample(s);ME - 3 Map(s); 1:10 000,1:2500
SILT 19 sample(s);ME
SOIL 450 sample(s);ME - 3 Map(s); 1:2500
TOPO 2010.0 ha
GEOLOGY: The property is underlain by northwest trending schistose felsic volcaniclastics of the Lower Paleozoic McLaughlin Ridge Formation and sedimentary rocks of the Upper Paleozoic Cameron River Formtion. These rocks have been intruded by Upper Triassic(?) gabbro sills and quartz diorite of the Lower-Middle Jurassic Island Intrusions. Narrow (5-20 centimetres) quartz veins contain pyrite, chalcopyrite and anomalous amounts of gold and silver. A magnetite-bearing coarse-grained gabbro horizon contains weakly anomalous amounts of palladium in one area.
RELATED A.R.: 16289
MINFILE: 092B 112

Josh A.R. 17138 REPORT YEAR: 1988, 7 Pages, 1 Map(s)

OPERATOR(S): **Rajala, D.**
AUTHOR(S): Rajala, D.
MINING DIV: Victoria
LOCATION: NTS 092B13W LAT. 48 49 34 LONG. 123 59 23
CLAIM(S): Josh 1-3
WORK DONE: EMGR 5.2 km;HLEM - 1 Map(s); 1:2500
GEOLOGY: The geology of the claims has not yet been assessed.

Lara A.R. 17857 REPORT YEAR: 1988, 873 Pages, 50 Map(s)

OPERATOR(S): **Abermin**
AUTHOR(S): Kapusta, J.D.
MINING DIV: Victoria
LOCATION: NTS 092B13W LAT. 48 52 54 LONG. 123 54 27
CLAIM(S): Solly,T.L.,Jennie
EXPL. TARGET: Copper,Lead,Zinc,Gold,Silver
WORK DONE: DIAD 15038.0 m 83 hole(s);NQ - 50 Map(s); 1:10 000,1:2500,1:1000,1:500
SAMP 900 sample(s);CU,PB,ZN,AG,AU,BA
GEOLOGY: The property is underlain primarily by the Paleozoic Sicker Group which comprises well differentiated volcanic rocks with interbedded tuffaceous, carbonaceous and volcaniclastic sedimentary rocks. These rocks are strongly deformed (commonly schistose) and are regionally metamorphosed to lower and upper greenschist facies. Bands, laminae and stringers of sulphide minerals occur in a strongly silicified rhyolite host.
RELATED A.R.: 14492
MINFILE: 092B 110

Mt. Sicker A.R. 17834 REPORT YEAR: 1988, 28 Pages, 1 Map(s)

OPERATOR(S): **Minnova**
AUTHOR(S): Wells, G.S.
MINING DIV: Victoria
LOCATION: NTS 092B13W LAT. 48 51 54 LONG. 123 46 42
CLAIM(S): Richard III
EXPL. TARGET: Copper,Zinc,Silver,Gold
WORK DONE: DIAD 447.0 m 1 hole(s);BQ - 1 Map(s); 1:5000
GEOLOGY: The Mt. Sicker property is underlain by felsic and mafic volcaniclastic rocks and flows belong to the Myra Formation of the Paleozoic Sicker Group. Triassic diorite dykes crosscut the stratigraphy. The conformable units form a geanticlinal structure which plunges gently to the west. East trending and northeast trending faults of varying displacements divide the area into numerous fault blocks. The Lenora and Tyee mines, two past producers on the Mt. Sicker property, produced a total of 305 787 tons of copper-zinc-gold-silver ore.
RELATED A.R.: 12317, 14735
MINFILE: 092B 003

Poly Group A.R. 16906 REPORT YEAR: 1987, 103 Pages, 5 Map(s)

OPERATOR(S): **Canamin Res.**
AUTHOR(S): Hawkins, T.G. Thomae, B.
MINING DIV: Victoria
LOCATION: NTS 092B13W LAT. 48 51 00 LONG. 123 54 00
CLAIM(S): Poly,Poly 2
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc,Barium/Barite,Manganese
WORK DONE: GEOL 450.0 ha - 1 Map(s); 1:5000
ROCK 40 sample(s);ME
SILT 9 sample(s);ME
SOIL 88 sample(s);ME - 4 Map(s); 1:5000
GEOLOGY: The Poly property is underlain by the west-northwest striking, north to northeast dipping Sediment-Sill Unit of the Paleozoic Sicker Group. The succession of interbedded chert, cherty tuff, siltstone argillite and slaty argillite interbedded with tuffwacke is intruded by locally 'flower porphyritic' diabasic sills compositionally similar to Karmutsen Formation basalts. These rocks are unconformably overlain by conglomerates and shales of the Upper Cretaceous Nanaimo Group. A manganese-oxide showing occurs in bedded cherts and a crosscutting quartz vein. At this location very light pink and green rhodonite lenses occur.

VICTORIA 092B

RELATED A.R.:	14919, 15823	

Twin A.R. 16716 REPORT YEAR: 1987

OPERATOR(S):	**Minnova**	
AUTHOR(S):	Wells, G.S.	
MINING DIV:	Victoria	
LOCATION:	NTS 092B13W, 092B13E	LAT. 48 51 57 LONG. 123 48 53
CLAIM(S):	Sicker 1,Copper Canyon,Coppermint 1-3	
WORK DONE:	DIAD 3217.2 m 16 hole(s);NQ SAMP 250 sample(s);ME	
GEOLOGY:	The property is underlain by Paleozoic Sicker Group volcanic rocks, Upper Cretaceous Nanaimo Group sediments and dioritic intrusions of possible Triassic age.	
RELATED A.R.:	03099, 04626, 06599, 06600, 06602, 06972, 07183, 07435, 11328	

CAPE FLATTERY 092C

Rena A.R. 17155 REPORT YEAR: 1988, 49 Pages, 5 Map(s)

OPERATOR(S):	**Visible Gold**	
AUTHOR(S):	Matich, T. Leriche, P.D.	
MINING DIV:	Victoria	
LOCATION:	NTS 092C08E, 092C09E	LAT. 48 30 00 LONG. 124 03 39
CLAIM(S):	Rena 2-3	
EXPL. TARGET:	Gold	
WORK DONE:	EMGR 11.0 km;VLF - 3 Map(s); 1:5000 MAGG 11.0 km - 2 Map(s); 1:10 000,1:5000	
GEOLOGY:	The claims are underlain by the Leech River Complex (Triassic-Jurassic). This is a metasedimentary structural block bound on the north by the San Juan Fault and the south by the Leech River Fault. Elongated intrusions of quartz monzonite occur on the eastern part of the claims.	
RELATED A.R.:	11308, 13470	

Frost Lake A.R. 18174 REPORT YEAR: 1988, 102 Pages, 2 Map(s)

OPERATOR(S):	**Beau Pre Ex.**	
AUTHOR(S):	Allen, G.J.	
MINING DIV:	Victoria	
LOCATION:	NTS 092C09E	LAT. 48 40 43 LONG. 124 07 40
CLAIM(S):	Helga 1,FRS 1	
EXPL. TARGET:	Copper	
WORK DONE:	GEOL 1000.0 ha - 1 Map(s); 1:5000 HMIN 19 sample(s);ME - 1 Map(s); 1:5000 ROCK 25 sample(s);ME	
GEOLOGY:	The property is underlain by basaltic volcanic rocks and limestone of the Triassic Karmutsen Formation, micritic limestone of the Triassic Quatsino Formation, shale of the Triassic Parson Bay Formation, quartz diorite and dacite of the Jurassic Island Intrusions, and diorite and marble possibly of the Jurassic Westcoast Complex. Chalcopyrite bearing skarns occur adjacent to dacite dykes in Quatsino Formation limestone and in calcareous basaltic tuff of the Karmutsen Formation.	
RELATED A.R.:	12743, 14565, 15295, 16184	
MINFILE:	092C 012	

Gad A.R. 17229 REPORT YEAR: 1988, 53 Pages, 4 Map(s)

OPERATOR(S):	**Allan, V. Beau Pre Ex.**	
AUTHOR(S):	Allen, G.J.	
MINING DIV:	Victoria	
LOCATION:	NTS 092C09E	LAT. 48 34 35 LONG. 124 12 11
CLAIM(S):	Gad	
EXPL. TARGET:	Iron	
WORK DONE:	EMGR 5.5 km;VLF - 1 Map(s); 1:2500 MAGG 4.7 km - 1 Map(s); 1:2500 RADG 4.3 km - 1 Map(s); 1:2500 ROCK 6 sample(s);ME - 1 Map(s); 1:2500	
GEOLOGY:	The property is underlain by an east trending, steeply north dipping sequence of schistose metasediments and metavolcanics of the Leech River Complex. These rocks are possibly Jurassic in age and were metamorphosed during the Tertiary. Several magnetite and hematite-bearing horizons occur on the property. These are thought to be iron formations.	
RELATED A.R.:	11459	
MINFILE:	092C 124	

Carol A.R. 17223 REPORT YEAR: 1988, 61 Pages, 9 Map(s)

OPERATOR(S):	**Sumatra Res.**	
AUTHOR(S):	Cukor, V. Cukor, D.	
MINING DIV:	Victoria	
LOCATION:	NTS 092C09W	LAT. 48 34 03 LONG. 124 18 30
CLAIM(S):	Carol,Carol 1	
EXPL. TARGET:	Gold	
WORK DONE:	EMGR 38.3 km;VLF - 2 Map(s); 1:5000 GEOL 250.0 ha - 1 Map(s); 1:5000 LINE 38.3 km MAGG 38.3 km - 2 Map(s); 1:5000 SOIL 337 sample(s);AU,AG - 4 Map(s); 1:5000	
GEOLOGY:	The claims are underlain by quartzites, argillaceous quartzites and green schists of the Leech River Complex. Foliation is generally 090 degrees/30 degrees North to 090 degrees/50 degrees North. Alteration consists of silicification and chloritization. Mineralization consists of pyrite and hematite with some gold values.	
MINFILE:	092C 059	

Ozzard A.R. 17740 REPORT YEAR: 1988, 67 Pages, 5 Map(s)

OPERATOR(S):	**Umex**	
AUTHOR(S):	McConnell, D.L.	
MINING DIV:	Alberni	
LOCATION:	NTS 092C13E, 092C14W	LAT. 48 58 08 LONG. 125 28 31
CLAIM(S):	Ozz,Ozz 2-4,Ozzie	
WORK DONE:	EMAB 155.0 km;HLEM - 4 Map(s); 1:5000 MAGA 155.0 km - 1 Map(s); 1:5000	
GEOLOGY:	The claims are underlain by agglomerates and tuffs of the Lower Jurassic Bonanza Group as well as diorites of the Lower-Middle Jurassic Island Intrusions. Zones of shearing occur in both of these rocks attaining widths exceeding ten metres in places but often much narrower gold-arsenic bearing quartz veins occur locally within these shears.	
RELATED A.R.:	08885, 10631, 11708, 12817, 14591	

Dar A.R. 17564 REPORT YEAR: 1988, 33 Pages

OPERATOR(S): **Demontigny, P.**
AUTHOR(S): Allen, G.J.
MINING DIV: Alberni
LOCATION: NTS 092C14E LAT. 48 46 00 LONG. 125 04 00
CLAIM(S): Dar 6,Dar 8-9
EXPL. TARGET: Gold
WORK DONE: PROS 300.0 ha
ROCK 10 sample(s);ME
SILT 8 sample(s);ME

GEOLOGY: The Oenic property is underlain by medium-grained diorite of the Jurassic (?) Westcoast Complex and granite of the Jurassic Island Intrusions. Traces of placer gold occur in Michigan Creek draining the property.

Archer (Good Gold) A.R. 17164 REPORT YEAR: 1988, 107 Pages, 4 Map(s)

OPERATOR(S): **Muspar Res.**
AUTHOR(S): Fischl, P.
MINING DIV: Victoria
LOCATION: NTS 092C15E, 092C16W LAT. 48 52 20 LONG. 124 31 01
CLAIM(S): Archer I-II,Tatters II
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 113.4 m 5 hole(s);EX
GEOL 1070.0 ha - 2 Map(s); 1:5000
PITS 205 pit(s) - 2 Map(s); 1:1000
ROAD 2.2 km
TREN 12.0 m 3 trench(es)

GEOLOGY: The property covers the following formations: Upper Triassic Karmutsen Formation mafic volcanics, Upper Triassic Quatsino Formation limestone, Upper Triassic Parsons Bay Formation argillite and Lower Jurassic Bonanza Group sediments and volcanics. They have been folded, faulted and intruded by Middle Jurassic and Tertiary dykes. Pyritic felsic Bonanza Group volcanics contain anomalous gold and silver values.

Heather A.R. 16805 REPORT YEAR: 1987, 15 Pages, 1 Map(s)

OPERATOR(S): **Minnova**
AUTHOR(S): Wells, G.S.
MINING DIV: Victoria
LOCATION: NTS 092C15E LAT. 48 58 26 LONG. 124 31 27
CLAIM(S): Carol S
EXPL. TARGET: Gold
WORK DONE: DIAD 157.6 m 1 hole(s);NQ - 1 Map(s); 1:2000

GEOLOGY: The Heather property is primarily underlain by northwesterly trending Paleozoic Sicker Group volcanic rocks. A northwesterly trending quartz-pyrite shear with gold values of up to 8.5 grams per tonne is hosted in andesitic tuffs of the Myra Formation. Other mineralization on the property includes the auriferous McDougall quartz veins which are hosted in the Nitinat Formation.

MINFILE: 092C 127

Jasper A.R. 16700 REPORT YEAR: 1987

OPERATOR(S): **Asamera**
AUTHOR(S): Dupre, D.G.
MINING DIV: Victoria
LOCATION: NTS 092C15E LAT. 48 51 00 LONG. 124 34 47
CLAIM(S): Jasper 1
WORK DONE: GEOL 225.0 ha
LINE 25.0 km
ROCK 31 sample(s);CU,PB,ZN,AG,MN,AU,BA
SOIL 154 sample(s);CU,PB,ZN,AG,MN,AU,BA

GEOLOGY: The property is underlain by complexly deformed Lower Jurassic Bonanza Group mafic-felsic extrusive rocks and very minor volcaniclastics. Several small, widely scattered, low grade copper-zinc mineralized occurrences are localized withing lengthy, narrow, fracture/alteration zones.

RELATED A.R.: 03025, 03649, 05857, 08250, 12260, 13916

Jasper A.R. 17105 REPORT YEAR: 1987, 36 Pages, 2 Map(s)

OPERATOR(S): **Asamera Min.**
AUTHOR(S): Dupre, D.G.
MINING DIV: Victoria
LOCATION: NTS 092C15E LAT. 48 51 00 LONG. 124 34 47
CLAIM(S): Jasper 1
EXPL. TARGET: Copper,Zinc,Gold
WORK DONE: GEOL 225.0 ha - 1 Map(s); 1:2500
LINE 25.0 km
ROCK 31 sample(s);CU,PB,ZN,AG,AU,MN,BA
SOIL 154 sample(s);CU,PB,ZN,AG,AU,MN,BA - 1 Map(s); 1:2500

GEOLOGY: The Jasper property is underlain by the complexly deformed Bonanza Group of mafic to felsic extrusive rocks and very minor volcaniclastics. Several small, widely scattered, low-grade copper/zinc mineral occurrences were delineated within lengthy, narrow, fracture/alteration zones.

RELATED A.R.: 12260, 13916, 16700
MINFILE: 092C 080, 092C 081

Lloyd A.R. 17566 REPORT YEAR: 1988, 18 Pages

OPERATOR(S): **Ruza Res.**
AUTHOR(S): Ven Huizen, G.L.
MINING DIV: Alberni
LOCATION: NTS 092C15E LAT. 48 52 15 LONG. 124 39 55
CLAIM(S): Lloyd 1
EXPL. TARGET: Silver,Copper,Zinc
WORK DONE: LINE 10.6 km
ROCK 8 sample(s);ME

GEOLOGY: Lower Jurassic Bonanza Group volcanics contain sulphide mineralization with areas of silver, copper and zinc values.

MINFILE: 092C

Ni A.R. 17406 REPORT YEAR: 1988, 29 Pages, 5 Map(s)

OPERATOR(S): **Lucky 7 Ex.**
AUTHOR(S): Mehner, D.T.
MINING DIV: Alberni
LOCATION: NTS 092C15E LAT. 48 53 22 LONG. 124 42 17
CLAIM(S): Ni 1-3
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold
WORK DONE: EMGR 5.3 km;VLF - 1 Map(s); 1:5000

LINE 23.6 km - 1 Map(s); 1:5000
SOIL 880 sample(s);CU,PB,ZN,AG,AU - 3 Map(s); 1:5000

GEOLOGY: Mafic to felsic tuffs and flows of the Upper Triassic Karmutsen Formation are interbedded with mudstone and limestone units. Copper-lead-zinc-silver-gold mineralization occurs in massive sulphide lenses and along shear zones.

RELATED A.R.: 13706
MINFILE: 092C 061, 092C 092

St. Anthony A.R. 17845 REPORT YEAR: 1988, 75 Pages, 13 Map(s)

OPERATOR(S): **Gracey Res.**
AUTHOR(S): Cukor, D. Cukor, V.
MINING DIV: Victoria
LOCATION: NTS 092C15E LAT. 48 56 00 LONG. 124 35 00
CLAIM(S): St. Anthony,Silver Plate,Monte Casino
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 38.0 km;VLF - 4 Map(s); 1:5000
GEOL 1250.0 ha - 1 Map(s); 1:5000
LINE 38.0 km
MAGG 38.0 km - 2 Map(s); 1:5000
ROCK 55 sample(s);AU,AG
SOIL 558 sample(s);AU,AG,CU - 6 Map(s); 1:5000

GEOLOGY: Eastern portion of claims are mostly underlain by the volcanic flows of Nitinat and Bonanza Formations. On the western portion the metasediments intruded by Myra intrusives of the Sicker Group. These two formations are in fault contact. Mineralization consists of magnetite and pyrite in silicified areas and skarn zones which carry low gold and silver values.

Wabana A.R. 16813 REPORT YEAR: 1987, 22 Pages, 1 Map(s)

OPERATOR(S): **Muspar Res.**
AUTHOR(S): Fischl, P.
MINING DIV: Victoria
LOCATION: NTS 092C15E LAT. 48 52 30 LONG. 124 33 44
CLAIM(S): Wabana 1,Buz
EXPL. TARGET: Copper
WORK DONE: DIAD 118.7 m 4 hole(s);EX ,BQ
GEOL 230.0 ha - 1 Map(s); 1:5000

GEOLOGY: The claims are underlain by Upper Triassic Karmutsen Formation mafic volcanics, Upper Triassic Quatsino Formation limestone, Upper Triassic Parsons Bay argillite and Lower Jurassic Bonanza Group sediments and volcaniclastics which have been folded, faulted and intruded by Middle Jurassic and Tertiary dykes. Actinolite-magnetite-chalcopyrite mineralization is developed where the dykes intrude limestone.

MINFILE: 092C 037

Blue Grouse A.R. 17039 REPORT YEAR: 1987, 78 Pages, 10 Map(s)

OPERATOR(S): **Mic Mik Res.**
AUTHOR(S): Hulme, N.J. DiSpirito, F.
MINING DIV: Victoria
LOCATION: NTS 092C16E, 092C16W LAT. 48 50 50 LONG. 124 13 55
CLAIM(S): Blue Grouse,Blue Grouse 1-2,SS 1-6,SS 8,Dads Birthday,Le Hurel,Skye,Split
EXPL. TARGET: Copper,Silver,Gold
WORK DONE: EMAB 235.0 km;VLF - 1 Map(s); 1:10 000
GEOL 2325.0 ha - 3 Map(s); 1:5000,1:1818
LINE 40.6 km
MAGA 235.0 km - 1 Map(s); 1:10 000
MAGG 37.0 km - 1 Map(s); 1:5000
ROCK 24 sample(s);ME
SOIL 755 sample(s);ME - 4 Map(s); 1:5000

GEOLOGY: The claims are underlain by Upper Triassic Vancouver Group volcanics and limestones, Lower Jurassic Bonanza Group volcanics and sediments and Upper Cretaceous Nanaimo Group sediments. Copper mineralization in skarns is associated with Upper Jurassic feldspar porphyry dykes and sills.

MINFILE: 092C 017, 092C 108

Harbey A.R. 17125 REPORT YEAR: 1987, 57 Pages, 5 Map(s)

OPERATOR(S): **Sierra Madre**
AUTHOR(S): Cukor, V.
MINING DIV: Victoria
LOCATION: NTS 092C16E LAT. 48 55 30 LONG. 124 09 30
CLAIM(S): Harbey
EXPL. TARGET: Gold
WORK DONE: EMGR 38.0 km; VLF - 1 Map(s); 1:5000
MAGG 38.0 km
SOIL 752 sample(s);AU,AG,CU,PB,ZN,MO - 4 Map(s); 1:5000

GEOLOGY: Mafic volcanics of the Franklin Creek Unit and cherts of the Sicker Group are intruded by diorite of the Jurassic Island Intrusions. Gold showings were found in the Sicker Group cherts and the intrusive rocks.

MINFILE: 092C

Haslam A.R. 18010 REPORT YEAR: 1988, 23 Pages, 1 Map(s)

OPERATOR(S): **Imperial Metals**
AUTHOR(S): Delancey, P.R.
MINING DIV: Nanaimo
LOCATION: NTS 092C16E LAT. 48 56 00 LONG. 124 01 00
CLAIM(S): Imperial H,Imp K
EXPL. TARGET: Copper,Zinc,Silver
WORK DONE: GEOL 150.0 ha - 1 Map(s); 1:5000
ROCK 10 sample(s);ME
SOIL 148 sample(s);ME

GEOLOGY: Upper Sicker Group greywackes, cherts, chlorite schists, gabbroic sills and dykes show ankeritic and pyritic zones. Soil and rock sampling returned only spot-anomalous values.

Osirus A A.R. 18097 REPORT YEAR: 1988, 30 Pages

OPERATOR(S): **Osirus Ent.**
AUTHOR(S): Shearer, J.T.
MINING DIV: Victoria
LOCATION: NTS 092C16E LAT. 48 54 00 LONG. 124 10 00
CLAIM(S): Osirus A
EXPL. TARGET: Rhodonite
WORK DONE: PROS 25.0 ha

GEOLOGY: A small Island Intrusion stock intrudes McLaughlin Ridge Formation mafic volcanics and Cameron River Formation ribbon cherts; both formations are of the Paleozoic Sicker Group. Good quality rhodonite in small quantities has been found as replacements of the dark cherts.

MINFILE: 092C 113

Schist A.R. 17447 REPORT YEAR: 1988, 13 Pages

OPERATOR(S): **Francis, A.**
AUTHOR(S): Francis, A.
MINING DIV: Victoria
LOCATION: NTS 092C16E LAT. 48 55 46 LONG. 124 02 05
CLAIM(S): Schist
EXPL. TARGET: Gold,Silver,Lead,Copper
WORK DONE: PROS 25.0 ha
GEOLOGY: The claims appear to be underlain by Paleozoic Sicker Group volcanics. Three samples taken from sheared rock in a creek bed contained up to 345 ppm zinc, 564 ppm copper, and 8 ppm silver.
RELATED A.R.: 12909

Sognidoro A.R. 16802 REPORT YEAR: 1987, 92 Pages, 1 Map(s)

OPERATOR(S): **Canamin Res.**
AUTHOR(S): Hawkins, T.G. Thomae, B.
MINING DIV: Victoria
LOCATION: NTS 092C16E LAT. 48 57 11 LONG. 124 04 34
CLAIM(S): Sognidoro
EXPL. TARGET: Gold,Silver,Copper,Lead
WORK DONE: GEOL 375.0 ha - 1 Map(s); 1:5000
HMIN 8 sample(s);ME
ROCK 43 sample(s);ME
SILT 21 sample(s);ME
SOIL 3 sample(s);ME
GEOLOGY: The Sediment-Sill Unit of the Paleozoic Sicker Group largely underlies the claim. An altered intrusive unit (Jurassic?) is exposed in the northwest portion of the claim. Chloritic schists intruded by diabase dykes, contain jasper horizons and a quartz vein which are conformable to the northwest trending schistosity. Pyrite and copper mineralization occur in the quartz vein and jasper horizons are locally associated with gold and silver. A regional fault passes through the claim along the uppermost Rheinhart Creek.

Heather A.R. 17833 REPORT YEAR: 1988, 43 Pages, 1 Map(s)

OPERATOR(S): **Minnova Int. Cherokee Dev.**
AUTHOR(S): Wells, G.S.
MINING DIV: Victoria
LOCATION: NTS 092C16W LAT. 48 59 30 LONG. 124 30 00
CLAIM(S): Lucia S
EXPL. TARGET: Gold,Copper
WORK DONE: DIAD 444.5 m 6 hole(s);BQ - 1 Map(s); 1:5000
GEOLOGY: The Heather property is underlain primarily by northwest trending Paleozoic Sicker Group volcanic rocks. A northwest trending quartz-pyrite shear zone with gold values of up to 8.57 grams per tonne gold is hosted in andesitic tuffs of the Myra Formation. Other mineralization on the property includes the McDougall quartz veins (8.57 grams per tonne gold) which are hosted in Nitinat Formation flow breccias.
RELATED A.R.: 11303, 12445, 13516, 15206, 16357, 17833
MINFILE: 092C 127, 092C

Heather A.R. 17835 REPORT YEAR: 1988, 33 Pages, 1 Map(s)

OPERATOR(S): **Minnova Int. Cherokee Dev.**
AUTHOR(S): Wells, G.S.
MINING DIV: Victoria
LOCATION: NTS 092C16W LAT. 48 59 00 LONG. 124 29 30
CLAIM(S): Carol S
EXPL. TARGET: Copper,Zinc,Gold
WORK DONE: DIAD 431.0 m 4 hole(s);NQ - 1 Map(s); 1:5000
GEOLOGY: The Heather property is underlain primarily by northwest trending Paleozoic Sicker Group volcanic rocks. A northwest trending quartz-pyrite shear with gold values of up to 8.5 grams per tonne gold is hosted in andesitic tuffs of the Myra Formation. Other mineralization on the property includes the auriferous McDougall quartz vein which are hosted in the Nitinat Formation.
RELATED A.R.: 11303, 12445, 13516, 15206, 16357, 17833
MINFILE: 092C

Marathon A.R. 18093 REPORT YEAR: 1988, 32 Pages, 2 Map(s)

OPERATOR(S): **Ruza Res.**
AUTHOR(S): Wahl, H.J.
MINING DIV: Victoria
LOCATION: NTS 092C16W LAT. 48 56 00 LONG. 124 18 30
CLAIM(S): Marathon,Taurus III
EXPL. TARGET: Copper,Silver,Gold
WORK DONE: PROS 700.0 ha - 2 Map(s); 1:7000,1:6000
ROCK 15 sample(s);AU,AG,CU,HG
SILT 7 sample(s);AU,AG,CU,HG
GEOLOGY: Sicker Group volcanic rocks, at contact with intrusive diorite, are sheared to 3 metre width and contain the Paula copper-silver-gold quartz vein showing. A sample of 42 centimetre section across the vein and sheared volcanic wallrock returned 137.6 grams of gold per tonne, 1.97 per cent copper, greater than 50 ppm silver, and 310-1500 ppb mercury.
MINFILE: 092C 126

Striker A.R. 17736 REPORT YEAR: 1988, 25 Pages

OPERATOR(S): **Nootka Min.**
AUTHOR(S): Freeze, J.C.
MINING DIV: Victoria
LOCATION: NTS 092C16W LAT. 48 54 00 LONG. 124 17 25
CLAIM(S): Cott 6
WORK DONE: PROS 500.0 ha
GEOLOGY: The property is underlain by Paleozoic Sicker Grouprocks consisting of the Nitinat Formation massive basalt and agglomerate; Myra Formation thin bedded andesitic-rhyodacitic lapillis and tuffs grading up into cherty ash tuffs; and Sediment Sill sediments i.e. chert with diorite sills. The Sicker Group intruded by Triassic-Jurassic granodiorite.

Taurus A.R. 17422 REPORT YEAR: 1988, 65 Pages, 10 Map(s)

OPERATOR(S): **Int. Black Gold Res.**
AUTHOR(S): Verzosa, R.S.
MINING DIV: Victoria
LOCATION: NTS 092C16W LAT. 48 58 42 LONG. 124 24 36
CLAIM(S): Taurus
EXPL. TARGET: Copper,Lead,Zinc,Gold,Silver

WORK DONE: EMAB 40.0 km;VLF - 2 Map(s); 1:10 000
MAGA 40.0 km - 2 Map(s); 1:10 000
SOIL 521 sample(s);CU,PB,ZN,AU,AG,AS - 6 Map(s); 1:5000
GEOLOGY: Pyritic gossan zones occur in porphyritic volcanics of the Sicker Group.

Taurus A.R. 17932 REPORT YEAR: 1988, 28 Pages, 4 Map(s)

OPERATOR(S): **Int. Black Gold Res.**
AUTHOR(S): Hermary, R.G. Woods, D.V.
MINING DIV: Victoria
LOCATION: NTS 092C16W LAT. 48 58 00 LONG. 124 20 00
CLAIM(S): Taurus II
WORK DONE: EMAB 60.0 km;VLF - 2 Map(s); 1:10 000
MAGA 60.0 km - 2 Map(s); 1:10 000
GEOLOGY: Quartz diorite to siliceous granites intrude the Vancouver and Cowhichan Groups. Quartz sulphide veins occur in the granites and granodiorites.
RELATED A.R.: 17422

NOOTKA SOUND 092E

Contact A.R. 17428 REPORT YEAR: 1988, 208 Pages, 31 Map(s)

OPERATOR(S): **Parallex Dev.**
AUTHOR(S): Ryback-Hardy, V.
MINING DIV: Alberni
LOCATION: NTS 092E08E LAT. 49 18 00 LONG. 126 04 24
CLAIM(S): Contact 1-3,Au
EXPL. TARGET: Gold,Copper,Silver,Lead
WORK DONE: DIAD 894.0 m 10 hole(s);BQ - 5 Map(s); 1:250
GEOL 104.2 ha - 3 Map(s); 1:2000,1:5000
IPOL 9.1 km - 18 Map(s); 1:1250
ROCK 89 sample(s);AU,ME - 1 Map(s); 1:2000
SAMP 209 sample(s);AU,ME
SOIL 407 sample(s);AU,ME - 4 Map(s); 1:2000
GEOLOGY: The claims are underlain by Westcoast Complex metavolcanics and Jurassic Island Intrusions. Several discordant skarn bodies are localized within the volcanic sequence near the intrusive contact. Massive magnetite, pyrite, pyrrhotite and local chalcopyrite and bornite occur in the skarn zones.
MINFILE: 092E 012, 092E 021, 092E 022, 092E 033, 092E 034

Monarch A.R. 17724 REPORT YEAR: 1988, 15 Pages, 1 Map(s)

OPERATOR(S): **BQ Min.**
AUTHOR(S): Neale, T.
MINING DIV: Alberni
LOCATION: NTS 092E14E LAT. 49 53 15 LONG. 127 01 35
CLAIM(S): Monarch
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: ROCK 4 sample(s);ME
SILT 7 sample(s);ME
SOIL 34 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: The property is underlain by Lower-Middle Jurassic Island Intrusions granodiorite. A 240 metre long by up to 1 metre wide quartz +/-carbonate vein-shear-breccia-gouge zone is mineralized with gold, silver and copper.
RELATED A.R.: 14796
MINFILE: 092E 043

Head Bay A.R. 17521 REPORT YEAR: 1988, 117 Pages, 3 Map(s)

OPERATOR(S): **Centaur Res.**
AUTHOR(S): Awmack, H.J.
MINING DIV: Alberni
LOCATION: NTS 092E15E LAT. 49 48 00 LONG. 126 31 00
CLAIM(S): Vig 3,Vig 5,Vig 7-8
EXPL. TARGET: Gold,Copper,Lead,Zinc
WORK DONE: DIAD 437.1 m 9 hole(s);BQ - 1 Map(s); 1:200
GEOL 250.0 ha - 2 Map(s); 1:5000
ROCK 88 sample(s);AU,AG
SILT 6 sample(s);AU,AG,CU,PB,ZN,AS
SOIL 130 sample(s);AU,AG,CU,PB,ZN,AS
GEOLOGY: Triassic Karmutsen Formation basalts are overlain by Quatsino Formation limestones which in turn have been intruded by Eocene age Catface diorite. Magnetite (sphalerite-galena-chalcopyrite) skarns have formed at the Karmutsen/Quatsino contacts and Catface/Quatsino contacts. A 5-50 centimetres wide quartz-pyrite-chalcopyrite vein, dipping 12 degrees to the south has been traced for 50 metres by 20 metres within diorite, with values up to 200 grams gold per tonne.
RELATED A.R.: 16355
MINFILE: 092E 063

Mohawk A.R. 17139 REPORT YEAR: 1988, 41 Pages, 2 Map(s)

OPERATOR(S): **Cardinal Min.**
AUTHOR(S): Awmack, H.J.
MINING DIV: Alberni
LOCATION: NTS 092E15E LAT. 49 47 41 LONG. 126 34 21
CLAIM(S): Vig I-II
EXPL. TARGET: Gold
WORK DONE: GEOL 600.0 ha - 1 Map(s); 1:5000
ROCK 22 sample(s);ME
SILT 7 sample(s);ME
SOIL 102 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: An Eocene Catface Intrusion diorite cuts fault-bounded blocks of Upper Triassic Karmutsen Formation basalts and Quatsino Formation limestones which are overlain by Lower Jurassic Bonanza Group volcanics. The Mohawk vein is a 30 centimetre quartz vein with geochemically anomalous gold values.
MINFILE: 092E 005

Rosa A.R. 17399 REPORT YEAR: 1988, 24 Pages, 1 Map(s)

OPERATOR(S): **Steele, F.G.**
AUTHOR(S): Kahlert, B.
MINING DIV: Alberni
LOCATION: NTS 092E15W LAT. 49 48 00 LONG. 126 52 00
CLAIM(S): Rosa 1,Sophia 2
EXPL. TARGET: Copper,Zinc,Silver
WORK DONE: PROS 300.0 ha - 1 Map(s); 1:5000
ROCK 15 sample(s);ME
GEOLOGY: The property is underlain by Bonanza Group volcanics and sedimentary rocks and Island intrusives. Pyritic alteration and shear zones contain anomalous values of copper, zinc and silver.

Bon A.R. 17382 REPORT YEAR: 1988, 31 Pages

OPERATOR(S):	**Goldbank Ventures**
AUTHOR(S):	Christopher, P.A.
MINING DIV:	Nanaimo
LOCATION:	NTS 092F01E LAT. 49 12 00 LONG. 124 12 00
CLAIM(S):	Bon 1
EXPL. TARGET:	Gold,Silver,Copper,Lead
WORK DONE:	GEOL 25.0 ha ROCK 29 sample(s);ME SOIL 119 sample(s);ME
GEOLOGY:	The property is underlain by interbedded Sicker Group chert, argillite and andesitic tuff of the Myra Formation, which are in fault contact with Triassic Karmutsen basalts. The Lily showing occurs in a silicified fault contact zone, while the T-Bird showing is in a brittle andesitic tuff layer in the Myra Formation. Veins and wall rock are pyritic with minor calcopyrite and galena reported.
RELATED A.R.:	10372, 14427
MINFILE:	092F 055

Songbird A.R. 17837 REPORT YEAR: 1988, 137 Pages, 6 Map(s)

OPERATOR(S):	**Mingold Res.**
AUTHOR(S):	Taylor, K.J.
MINING DIV:	Nanaimo
LOCATION:	NTS 092F01E LAT. 49 13 18 LONG. 124 13 32
CLAIM(S):	Songbird 1-4
EXPL. TARGET:	Gold,Silver,Copper,Zinc
WORK DONE:	EMGR 31.0 km;VLF - 1 Map(s); 1:5000 GEOL 400.0 ha - 1 Map(s); 1:5000 LINE 46.6 km ROCK 41 sample(s);CU,ZN,AU,AG SOIL 974 sample(s);CU,ZN,AG,AU - 4 Map(s); 1:5000
GEOLOGY:	The property is underlain by Paleozoic Sicker Group volcanics and sediments in fault contact with Upper Triassic Karmutsen Formation andesites. The main mineralization consists of gold-bearing pyrite-chalcopyrite-arsenopyrite associated with quartz-carbonate flooded breccia along the faulted contact zone.
RELATED A.R.:	11926, 15810, 17384
MINFILE:	092F 055

Songbird A.R. 17384 REPORT YEAR: 1988, 25 Pages, 1 Map(s)

OPERATOR(S):	**Expeditor Res. Group**
AUTHOR(S):	Taylor, K.J.
MINING DIV:	Nanaimo
LOCATION:	NTS 092F01E LAT. 49 12 41 LONG. 124 13 28
CLAIM(S):	Songbird 1-2
EXPL. TARGET:	Gold,Silver,Copper
WORK DONE:	EMGR 7.5 km;VLF - 1 Map(s); 1:5000 LINE 9.5 km
GEOLOGY:	The property is underlain by Paleozoic Sicker Group volcanics and sediments in fault contact on the west with Upper Triassic basalts and andesites of the Karmutsen Formation. The main mineralized showing comprises quartz-ankerite, pyrite and arsenopyrite localized along a northwest trending fault structure.
RELATED A.R.:	11926, 15810
MINFILE:	092F 055

Frank A.R. 16585 REPORT YEAR: 1988, 58 Pages, 1 Map(s)

OPERATOR(S):	**Renaudat, F.**
AUTHOR(S):	Renaudat, F.
MINING DIV:	Nanaimo
LOCATION:	NTS 092F01W, 092F02E LAT. 49 05 07 LONG. 124 29 52
CLAIM(S):	Frank
EXPL. TARGET:	Copper,Lead,Zinc,Silver,Gold
WORK DONE:	PROS 400.0 ha - 1 Map(s); 1:5000 ROCK 12 sample(s);ME SOIL 91 sample(s);ME
GEOLOGY:	The claim is underlain by Paleozoic Sicker Group volcanics.
MINFILE:	092F

Sicker-Rush A.R. 17600 REPORT YEAR: 1988, 486 Pages, 33 Map(s)

OPERATOR(S):	**Int. Capri Res.**
AUTHOR(S):	Lorenzetti, G.M. Lund, K.D.
MINING DIV:	Nanaimo
LOCATION:	NTS 092F01W LAT. 49 09 00 LONG. 124 23 00
CLAIM(S):	Sicker 1-2,Rush 1-3,Nan 1,Nan 5-7
EXPL. TARGET:	Gold,Silver,Copper,Zinc
WORK DONE:	DIAD 1002.0 m 7 hole(s);NQ - 5 Map(s); 1:250 EMGR 16.6 km;VLF - 2 Map(s); 1:2500 GEOL 3400.0 ha - 4 Map(s); 1:10 000,1:2500 IPOL 14.3 km - 15 Map(s); 1:2500,1:1250 MAGG 23.3 km - 1 Map(s); 1:2500 ROCK 436 sample(s);AU,ME - 4 Map(s); 1:10 000,1:2500 SAMP 429 sample(s);AU,ME SILT 15 sample(s);AU,ME SOIL 669 sample(s);AU,ME - 2 Map(s); 1:2500
GEOLOGY:	The property is underlain by north-northwest to northeast trending Sicker Group rocks intruded to the west by a large body of Island Intrusions and locally overlain by Nanaimo Group sediments in the south. Diamond drilling was carried out on geophysical, geochemical and geological targets within a north-northwest trending 800 metres wide zone of ankerite alteration. Assays include 3.52 grams per tonne gold over 102 centimetres and 2.93 grams per tonne gold over 59 centimetres. Mineralization includes: gold, pyrite, pyrrhotite, and magnetite.
RELATED A.R.:	16592
MINFILE:	092F

Villalta A.R. 16719 REPORT YEAR: 1987

OPERATOR(S):	**Canamin Res.**
AUTHOR(S):	Lisle, T.E. Quinn, S.P.
MINING DIV:	Nanaimo
LOCATION:	NTS 092F01W LAT. 49 05 58 LONG. 124 28 20
CLAIM(S):	Villalta
WORK DONE:	DIAD 1042.1 m 47 hole(s);HQ ,NQ SAMP 445 sample(s);ME
GEOLOGY:	The Upper Devonian Myra Formation of the Sicker Group is exposed at lower elevations in the southern area of the property and is capped by Upper Cretaceous Nanaimo Group sediments, the Middle Devonian Nitinat Formation and Upper Triassic Karmutsen Formation

volcanics. Locally the Pennsylvanian Buttle Lake Formation limestone is exposed above the Myra Formation and on the Villalta D claim a hematite-iron formation lies at the unconformity between the limestone and the Nanaimo Group sediments.

RELATED A.R.: 07792, 07953, 08458, 10789, 15939

Vulcan A.R. 17258 REPORT YEAR: 1988, 90 Pages, 21 Map(s)

OPERATOR(S): **Stow Res.**
AUTHOR(S): Henneberry, T.
MINING DIV: Nanaimo
LOCATION: NTS 092F01W LAT. 49 07 20 LONG. 124 16 01
CLAIM(S): Wandering Star,Rhino XIV-XV,Rhino XII,Rex 1
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: EMGR 34.0 km;VLF - 2 Map(s); 1:5000,1:2500
GEOL 2000.0 ha - 6 Map(s); 1:10 000,1:250
MAGG 34.0 km - 2 Map(s); 1:5000,1:2500
SOIL 1361 sample(s);ME - 11 Map(s); 1:10 000,1:5000,1:2500

GEOLOGY: The property is underlain by Upper Triassic Karmutsen Formation andesites intruded by Jurassic granodiorite. Upper Cretaceous Comox Formation sediments overlie the earlier units. Tertiary dacite sills intrude the sequence. Mineralization consists of auriferous quartz veins of suspected Tertiary age. Alteration halos of bleaching, chloritization, limonitization with lesser silicification envelope the shear zones.

MINFILE: 092F 114

Arrowsmith A.R. 17408 REPORT YEAR: 1988, 44 Pages

OPERATOR(S): **Edsons Res.**
AUTHOR(S): Angus, S.
MINING DIV: Nanaimo
LOCATION: NTS 092F02E LAT. 49 13 00 LONG. 124 38 00
CLAIM(S): Arrowsmith
EXPL. TARGET: Gold
WORK DONE: SOIL 265 sample(s);ME,AU

GEOLOGY: The claims are underlain by Cretaceous Nanaimo Group sediments, Triassic Vancouver Group volcanics and Paleozoic Sicker Group sediments and volcanics.

The rocks trend north-northwest and dip to the east and are intruded by a Tertiary granite. There are no known mineral occurrences of significance on the property.

Black Panther A.R. 17235 REPORT YEAR: 1987, 77 Pages, 20 Map(s)

OPERATOR(S): **Candorada Mines**
AUTHOR(S): Hawkins, P.A. Jurcic, P.
MINING DIV: Victoria
LOCATION: NTS 092F02E LAT. 49 06 00 LONG. 124 36 34
CLAIM(S): Mar,Jan,Black Panther 1-8
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 5.1 km;VLF - 3 Map(s); 1:1000
GEOL 100.0 ha - 8 Map(s); 1:10 000,1:2500,1:1000,1:500
LINE 5.1 km
LSUR 5.6 km - 2 Map(s); 1:6000,1:2500
MAGG 5.1 km - 3 Map(s); 1:1000
ROCK 343 sample(s);AU,AG,AS - 2 Map(s); 1:2500,1:1000
SOIL 52 sample(s);AU,AG,CU,PB,ZN,AS - 2 Map(s); 1:1000
TRAL 0.9 km

GEOLOGY: The property lies in the north-central portion of the Horne Lake-Cowichan Uplift. It is underlain by volcanic rocks of the Middle Devonian Nitinat Formation of the Sicker Group. Major north-south faulting dominates the area. Gold mineralization is associated with quartz-carbonate along shears and in adjacent undeformed altered wall rock.

MINFILE: 092F 084, 092F 085

DDAM A.R. 17562 REPORT YEAR: 1988, 35 Pages, 3 Map(s)

OPERATOR(S): **Lacana Min.**
AUTHOR(S): Jones, P.W.
MINING DIV: Nanaimo
LOCATION: NTS 092F02E LAT. 49 12 00 LONG. 124 37 30
CLAIM(S): DDAM 1-2
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 4.9 km;VLF
GEOL 400.0 ha - 2 Map(s); 1:5000
LINE 4.9 km
ROCK 101 sample(s);ME
SOIL 201 sample(s);ME - 1 Map(s); 1:5000

GEOLOGY: The property is underlain by Sicker volcanic rocks, predominantly lapilli agglomeratic tuffs of the Nitnat Formation. Included within the tuffs is a silicious, banded, grey-black aphanitic tuff layer. There are silicified, bleached, altered, pyritic zones at stratigraphic contacts.

RELATED A.R.: 14768

Emma A.R. 16799 REPORT YEAR: 1987, 81 Pages, 4 Map(s)

OPERATOR(S): **Au Res.**
AUTHOR(S): Hawkins, T.G. Cope, G.R.
MINING DIV: Nanaimo
LOCATION: NTS 092F02E LAT. 49 10 06 LONG. 124 34 03
CLAIM(S): Emma,Emma 7-8,Emma 10-11,Emma 20
EXPL. TARGET: Gold,Silver,Copper,Zinc
WORK DONE: SOIL 777 sample(s);ME - 4 Map(s); 1:2500

GEOLOGY: The Emma property is predominantly underlain by north-northeast trending Upper Paleozoic Sicker Group tuffs, agglomerates and lesser pillow basalt. Mineralization consists of sulphide-rich quartz veins, pyritic alteration envelopes and pyritic cherty tuffs.

Fitzwater A.R. 16731 REPORT YEAR: 1987

OPERATOR(S): **Crew Min.**
AUTHOR(S): Neale, T.
MINING DIV: Victoria
LOCATION: NTS 092F02E LAT. 49 03 22 LONG. 124 37 23
CLAIM(S): Starboard,Water,Aud Fr.,Aud 2 Fr.
WORK DONE: DIAD 869.0 m 9 hole(s);BQ
GEOL 1700.0 ha
IPOL 10.8 km
LINE 11.2 km
SOIL 1006 sample(s);ME
TREN 80.0 m 2 trench(es)

GEOLOGY: The claims are underlain by rocks of the Paleozoic Sicker Group and Upper Triassic Vancouver Group. Mineralization consists of

sulphide-rich quartz and quartz-carbonate.
RELATED A.R.: 13672, 14470, 15694

Havilah A.R. 17222 REPORT YEAR: 1987, 39 Pages, 3 Map(s)

OPERATOR(S): **Labyrinth Res.**
AUTHOR(S): Butler, S.P.
MINING DIV: Alberni
LOCATION: NTS 092F02E LAT. 49 07 24 LONG. 124 35 48
CLAIM(S): Sol A,Sol B
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: EMGR 1.5 km;VLF - 1 Map(s); 1:1000
GEOL 250.0 ha - 1 Map(s); 1:10 000
LINE 2.5 km
ROCK 19 sample(s);CU,PB,ZN,AS,AG,AU
SILT 6 sample(s);CU,PB,ZN,AS,AG,AU
SOIL 244 sample(s);CU,PB,ZN,AS,AG,AU - 1 Map(s); 1:10 000
GEOLOGY: The property is underlain by Middle Devonian Nitinat Formation andesites. Light coloured diorites of the Lower-Middle Jurassic Island Intrusions occur as a stock and dykes with some porphyritic Tertiary dykes also occurring. Mineralization is known in a north trending quartz vein, known as the former producing Havilah Mine.
RELATED A.R.: 05354, 06138, 06643, 07600, 10194
MINFILE: 092F 082, 092F 385

Hoop A.R. 17640 REPORT YEAR: 1988, 64 Pages, 1 Map(s)

OPERATOR(S): **Haglund Ind. Int.**
AUTHOR(S): Getsinger, J.S.
MINING DIV: Victoria
LOCATION: NTS 092F02E LAT. 49 01 00 LONG. 124 31 30
CLAIM(S): Hoop 1-5
EXPL. TARGET: Gold,Copper
WORK DONE: GEOL 300.0 ha - 1 Map(s); 1:10 000
ROCK 37 sample(s)
SILT 5 sample(s);ME
GEOLOGY: The Hoop claims are underlain by Paleozoic Sicker Group mafic volcanic and volcaniclastic rocks, and are transected by a major northwest-trending, carbonate-altered shear zone related to the Cowichan Lake Fault. A mafic igneous complex consisting of sheared diorite, gabbro, uralitized pyroxenite, and basaltic volcanics occurs on the west side. Lithogeochemical values are elevated in gold, copper, nickel and chromium. Layered cherty tuff with banded sulphides indicates potential for nearby volcanogenic massive sulphide deposits.
RELATED A.R.: 14461

Linda A.R. 17552 REPORT YEAR: 1988, 314 Pages

OPERATOR(S): **Nexus Res.** **Westmin Res.**
AUTHOR(S): Lyons, E.M.
MINING DIV: Alberni
LOCATION: NTS 092F02E LAT. 49 10 09 LONG. 124 40 05
CLAIM(S): Linda 1
EXPL. TARGET: Gold
WORK DONE: DIAD 4208.8 m 38 hole(s);BQ
GEOLOGY: The work area lies in the lower part of the Middle Devonian Myra Formation stratigraphy on the property. The most dominant lithology is aphyric pillowed basalts which locally have cherty pillow interstices. The unit is capped by a complex of laminated cherts, locally jasper and/or magnetite-bearing, and mixed basalt and chert tuffs and lapilli tuffs. Strong penetrative schistosity striking 330 degrees with subvertical dip and shallow plunging northwest lineation affects the basalt flows. Gold mineralization occurs in quartz stockwork and veins within pillowed basalt flows as well as pyritized chert and basalt tuff which overlies the flows.
RELATED A.R.: 15368
MINFILE: 092F 079

Lizard A.R. 16890 REPORT YEAR: 1988, 34 Pages, 13 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Bull, D.R. Wilson, R.G.
MINING DIV: Alberni
LOCATION: NTS 092F02E LAT. 49 08 12 LONG. 124 40 06
CLAIM(S): Dinosaur,Diplodocus,Crinosaurus
EXPL. TARGET: Gold,Copper
WORK DONE: GEOL 111.0 ha - 4 Map(s); 1:2500
LINE 52.9 km - 1 Map(s); 1:5000
ROCK 79 sample(s);AU,AG,CU,AS
SOIL 1842 sample(s);AU,AG,CU,AS - 8 Map(s); 1:5000
GEOLOGY: The claims are underlain by Paleozoic Sicker Group intermediate tuffs, flows and limestone, Upper Triassic Karmutsen Formation intermediate-mafic tuffs and flows, and a clastic sediment possibly belonging to the Upper Cretaceous Comox Formation. Steeply dipping north and east faults are intermittently quartz-carbonate altered with minor pyrite containing anomalous values of gold.
RELATED A.R.: 07719, 08568, 08981, 10401, 10890, 12664, 13214
MINFILE: 092F 285

Logan A.R. 16982 REPORT YEAR: 1987, 70 Pages, 6 Map(s)

OPERATOR(S): **Antony Res.**
AUTHOR(S): Cukor, V.
MINING DIV: Victoria
LOCATION: NTS 092F02E, 092C15E LAT. 49 00 00 LONG. 124 35 10
CLAIM(S): Logan,Logan I-II
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 52.0 km;VLF - 1 Map(s); 1:5000
MAGG 52.0 km - 1 Map(s); 1:5000
SOIL 687 sample(s);AU,AG,NI,CU - 4 Map(s); 1:5000
GEOLOGY: Volcanics and sediments of the Upper Triassic Vancouver Group and Paleozoic Sicker Group are intruded by Saanich granodiorite. Gold occurs in pyritic and silicified volcanics and in quartz-carbonate veins and/or stockwork.

McKinlay A.R. 16822 REPORT YEAR: 1987, 36 Pages, 16 Map(s)

OPERATOR(S): **Swift Min.**
AUTHOR(S): Verzosa, R.S.
MINING DIV: Victoria
LOCATION: NTS 092F02E LAT. 49 08 29 LONG. 124 34 30
CLAIM(S): McKinlay,McKinlay I
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: EMGR 15.6 km;VLF - 2 Map(s); 1:5000,1:2500
LINE 15.6 km
MAGG 15.6 km - 2 Map(s); 1:5000,1:2500

SOIL 616 sample(s);CU,PB,ZN,AG,AU,AS - 12 Map(s); 1:5000,1:2500
GEOLOGY: The property is underlain by Paleozoic Sicker Group pyroxene porphyry, agglomerate, tuff breccia, sandstone and chert. A northerly trending, silicified, pyritic gossan zone occurs.

Rodeo A.R. 17419 REPORT YEAR: 1988, 45 Pages, 1 Map(s)

OPERATOR(S): **TP Res.**
AUTHOR(S): Naciuk, T.M.
MINING DIV: Alberni
LOCATION: NTS 092F02E LAT. 49 00 38 LONG. 124 38 36
CLAIM(S): Rodeo,Aft,Andy 22
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc,Molybdenum/Molybdenite,Cadmium
WORK DONE: GEOL 480.0 ha - 1 Map(s); 1:10 000
ROCK 27 sample(s);ME
SILT 1 sample(s);ME
TREN 5.0 m 2 trench(es)
GEOLOGY: The Rodeo claim is underlain by Lower-Middle Jurassic Island Intrusions diorite-granodiorite and Lower Jurassic Bonanza Group and Upper Triassic Karmutsen Formation basalts. Abundant quartz veins cutting Island Intrusions and Bonanza Group rocks contain values in gold, silver, copper, zinc, molybdenum and bismuth. The Aft claim is underlain by Island Intrusions granodiorite.
RELATED A.R.: 13671, 14930, 16083
MINFILE: 092F 217

Singapore A.R. 17110 REPORT YEAR: 1988, 33 Pages

OPERATOR(S): **Angus, S.**
AUTHOR(S): Angus, S.
MINING DIV: Alberni
LOCATION: NTS 092F02E LAT. 49 09 30 LONG. 124 38 00
CLAIM(S): Singapore
EXPL. TARGET: Gold
WORK DONE: LINE 3.9 km
PROS 500.0 ha
SOIL 81 sample(s);ME
GEOLOGY: All outcrops examined were fine to medium grain andesites. Narrow quartz-carbonate veining was common. Minor pyrite was scattered throughout the rocks, but economic minerals were not evident. The adjacent property contains gold mineralization in Sicker rocks.

Snapper A.R. 17058 REPORT YEAR: 1987, 77 Pages

OPERATOR(S): **Saga Res.**
AUTHOR(S): Wood, D.H.
MINING DIV: Victoria
LOCATION: NTS 092F02E LAT. 49 06 30 LONG. 124 32 00
CLAIM(S): Snapper 1-2
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 10.4 km; VLF
GEOL 500.0 ha
LINE 10.4 km
MAGG 10.4 km
SAMP 26 sample(s);AU,AG
SOIL 262 sample(s);ME
GEOLOGY: Late Paleozoic Sicker Group sedimentary and volcanic rocks are cut by Tertiary (?) shear zones trending north. The shear zones bear mineralized quartz-carbonate veins containing varying amounts of pyrite, chalcopyrite, sphalerite and galena.
MINFILE: 092F

Spring A.R. 18108 REPORT YEAR: 1988, 153 Pages, 10 Map(s)

OPERATOR(S): **Int. Cherokee Dev.**
AUTHOR(S): Naciuk, T.M.
MINING DIV: Nanaimo
LOCATION: NTS 092F02E LAT. 49 09 00 LONG. 124 32 00
CLAIM(S): Spring 1-4,Sed 1,Ced 2
EXPL. TARGET: Gold,Zinc
WORK DONE: EMGR 10.9 km;VLF - 3 Map(s); 1:2500
GEOL 1400.0 ha - 2 Map(s); 1:2500,1:10 000
ROCK 142 sample(s);ME - 2 Map(s); 1:2500,1:10 000
SILT 14 sample(s);ME
SOIL 471 sample(s);ME - 3 Map(s); 1:2500
TREN 20.0 m 8 trench(es)
GEOLOGY: The property overlies the contact between the Paleozoic Sicker and Buttle Lake Groups and the Triassic Karmutsen Formation, on the northeast flank of the Horne Lake-Cowichan uplift. The Sicker Group is composed of basic to intermediate volcaniclastics and cherty tuff. One cherty tuff horizon has been intruded by a quartz diorite sill of the Tertiary Catface Intrusions. East trending quartz veins up to 30 centimetres wide are hosted in chert within a few metres of each side of the sill. The veins are heavily mineralized with pyrite and sphalerite.
RELATED A.R.: 15590, 17183
MINFILE: 092F

Spring A.R. 17183 REPORT YEAR: 1987, 110 Pages, 9 Map(s)

OPERATOR(S): **Int. Cherokee Dev.**
AUTHOR(S): Allen, G.J.
MINING DIV: Victoria
LOCATION: NTS 092F02E LAT. 49 09 00 LONG. 124 32 48
CLAIM(S): Spring 1-4,Sed 1
EXPL. TARGET: Gold,Zinc
WORK DONE: EMGR 6.9 km; VLF - 2 Map(s); 1:2500
GEOL 1500.0 ha - 3 Map(s); 1:10 000,1:2500
ROCK 56 sample(s);ME - 1 Map(s); 1:2500
SAMP 20 sample(s);AU
SILT 8 sample(s);ME
SOIL 180 sample(s);ME - 3 Map(s); 1:2500
TOPO 4500.0 ha
GEOLOGY: The property covers a contact between the Paleozoic Sicker and Buttle Lake groups and the Triassic Karmutsen Formation on the northeast flank of the Horne Lake-Cowichan uplift or geanticline. The Sicker Group is composed of mafic to intermediate volcaniclastics and cherty tuff. One cherty tuff horizon has been intruded by a quartz diorite sill of the Tertiary Catface Intrusions. East-west trending quartz veins up to 30 centimetres wide occur in chert within a few metres of each side of the sill. The veins are heavily mineralized with pyrite and sphalerite.
RELATED A.R.: 15590
MINFILE: 092F

Su (Emma) A.R. 17207 REPORT YEAR: 1988, 431 Pages, 39 Map(s)

OPERATOR(S):	**Au Res.**
AUTHOR(S):	Cope, G.R.
MINING DIV:	Nanaimo
LOCATION:	NTS 092F02E LAT. 49 10 06 LONG. 124 34 03
CLAIM(S):	Emma,Emma 1-5,Emma 7-15,Emma 20-21,Su 2-3
EXPL. TARGET:	Silver,Gold,Copper,Zinc
WORK DONE:	DIAD 1511.8 m 12 hole(s);NQ - 10 Map(s); 1:250 GEOL 400.0 ha - 2 Map(s); 1:2500 IPOL 17.9 km - 22 Map(s); 1:2500,1:1250 ROCK 205 sample(s);ME - 1 Map(s); 1:10 000 SAMP 755 sample(s);ME SILT 4 sample(s);ME SOIL 770 sample(s);ME - 4 Map(s); 1:2500
GEOLOGY:	The claims are underlain by the Myra Formation of the Paleozoic Sicker Group, mafic volcanics of the Upper Triassic Karmutsen Formation and minor sediments of the Upper Cretaceous Nanaimo Group. Sulphide mineralization is associated with quartz veins and shear zones which generally strike northwest.
RELATED A.R.:	16799
MINFILE:	092F

Thistle A.R. 17661 REPORT YEAR: 1988, 76 Pages, 8 Map(s)

OPERATOR(S):	**Nexus Res.**
AUTHOR(S):	Walker, J.E.
MINING DIV:	Alberni
LOCATION:	NTS 092F02E LAT. 49 06 00 LONG. 124 37 30
CLAIM(S):	Rand,Crow
EXPL. TARGET:	Gold,Silver
WORK DONE:	DIAD 1205.4 m 7 hole(s);NQ - 8 Map(s); 1:250,1:5000
GEOLOGY:	The property is underlain by a complex succession of Sicker Group volcanics and sediments of the Devonian to Permian Myra and Buttle Lake Formations overlain by Triassic Karmutsen Formation volcanics. Mineralization consists of auriferous pyrite and chalcopyrite in quartz veins or structurally controlled zones of chloritic alteration.
MINFILE:	092F 083

Toby A.R. 17948 REPORT YEAR: 1988, 21 Pages, 3 Map(s)

OPERATOR(S):	**Imperial Metals**
AUTHOR(S):	Delancey, P.R.
MINING DIV:	Alberni
LOCATION:	NTS 092F02E LAT. 49 05 00 LONG. 124 40 00
CLAIM(S):	Toby 2
EXPL. TARGET:	Copper,Gold
WORK DONE:	GEOL 126.0 ha - 1 Map(s); 1:2000 LINE 1.8 km ROCK 31 sample(s);AU,ME - 1 Map(s); 1:5000 SOIL 82 sample(s);AU,ME - 1 Map(s); 1:5000
GEOLOGY:	Upper Triassic Karmutsen basaltic volcanics and Jurassic Island intrusions underlie the claims. These rocks are cut by faults and associated ankerite shear zones. Local copper skarn mineralization and gold bearing quartz veins have been located along silicified contacts and along faults. Anomalous gold values are also associated with minor quartz veinlets and pyrite in granodiorite.
RELATED A.R.:	12809, 14873

Buck A.R. 17152 REPORT YEAR: 1988, 84 Pages, 12 Map(s)

OPERATOR(S):	**Stonewall Res.**
AUTHOR(S):	Yacoub, F.F. Leriche, P.D.
MINING DIV:	Alberni
LOCATION:	NTS 092F02W LAT. 49 13 00 LONG. 124 58 36
CLAIM(S):	Buck 1,Buck 2-87,Buck 3-87,Buck 4-87
EXPL. TARGET:	Gold,Copper,Lead,Zinc
WORK DONE:	EMGR 21.5 km;VLF - 2 Map(s); 1:5000 GEOL 900.0 ha - 1 Map(s); 1:10 000 MAGG 21.5 km - 1 Map(s); 1:5000 ROCK 26 sample(s);ME - 2 Map(s); 1:10 000 SOIL 361 sample(s);ME - 6 Map(s); 1:10 000
GEOLOGY:	Upper Triassic Vancouver Group rocks are overlain by Lower Jurassic Bonanza Group volcanic rocks. Karmutsen Formation rocks are intruded by granodiorite in the northwest corner of the claims. Two northwest trending pyritic shear zones are anomalous in gold, copper and arsenic.
RELATED A.R.:	15169

Columbia A.R. 17769 REPORT YEAR: 1988 5 Map(s)

OPERATOR(S):	**Payton Ventures**
AUTHOR(S):	Neale, T.
MINING DIV:	Victoria
LOCATION:	NTS 092F02W LAT. 49 01 00 LONG. 124 34 30
CLAIM(S):	L&N I-II,Columbia I-VI,Platinum
WORK DONE:	EMGR 1.7 km;VLF - 1 Map(s); 1:2500 GEOL 200.0 ha - 1 Map(s); 1:5000 MAGG 0.4 km ROCK 74 sample(s);ME SOIL 253 sample(s);ME - 3 Map(s); 1:2500
GEOLOGY:	The claims are mainly underlain by mafic Middle Devonian Nitinat Formation volcanics of the Paleozoic Sicker Group. A major north-northwest trending fault zone east of Rift Creek contains mixed fault slices of Nitinat Formation rocks and felsic volcanics and siliceous sediments of the Upper Devonian Myra Formation west of Rift Creek. Upper Triassic Karmutsen Formation(?) rocks host a small auriferous pyrite vein. Geochemical gold soil anomalies approximately follow the course of Rift Creek.
RELATED A.R.:	16167
MINFILE:	092F

Gold Nugget A.R. 17714 REPORT YEAR: 1988, 226 Pages, 11 Map(s)

OPERATOR(S):	**Barona Res.**
AUTHOR(S):	Borovic, I.
MINING DIV:	Alberni
LOCATION:	NTS 092F02W LAT. 49 01 00 LONG. 124 58 00
CLAIM(S):	Gold Nugget,Gold Vein
EXPL. TARGET:	Lead,Zinc,Silver,Gold
WORK DONE:	EMGR 39.1 km;VLF - 2 Map(s); 1:5000 GEOL 1400.0 ha - 2 Map(s); 1:10 000 LINE 39.8 km MAGG 39.1 km - 1 Map(s); 1:5000

SOIL 700 sample(s);ME - 6 Map(s); 1:5000

GEOLOGY: The geology of the property is characterized by limestone of the Triassic Quatsino Formation which has been intruded by granitic rocks of the Island Intrusions and overlain and intruded by Jurassic Bonanza Group mafic to felsic volcanic rocks. The intruded limestone has undergone contact metamorphism and metasomatism resulting from the intrusion and extrusion of the volcanic and intrusive rocks.

Numerous silver, lead, zinc, copper and gold occurrences associated with arsenopyrite and other sulphide mineralization have been located on adjacent Crown Grants. These include areas of shearing and silicification in volcanic and/or areas of metasomatic alteration of limestone (skarn development).

Otter A.R. 17441 REPORT YEAR: 1987, 131 Pages, 8 Map(s)

OPERATOR(S): **Veto Res.**
AUTHOR(S): Laanela, H.
MINING DIV: Alberni
LOCATION: NTS 092F02W LAT. 49 13 00 LONG. 124 55 30
CLAIM(S): Alder 1-2,Otter,Sproat,Arbutus
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: GEOL 1500.0 ha - 1 Map(s); 1:10 000
MAGG 17.3 km - 1 Map(s); 1:5000
ROCK 48 sample(s);AU,ME - 1 Map(s); 1:10 000
SOIL 778 sample(s);AU,ME - 5 Map(s); 1:5000

GEOLOGY: Triassic and Jurassic andesites, limestones and argillites are intruded by Jurassic granodiorites of the Island Intrussions. Skarn type mineralization has formed within a north trending limestone near the contact with underlying andesites. Sulphide minerals include chalcopyrite, bornite, pyrite, pyrrhotite, sphalerite.

RELATED A.R.: 16918
MINFILE: 092F

Skarn A.R. 16918 REPORT YEAR: 1987, 105 Pages, 12 Map(s)

OPERATOR(S): **Abstract Ent.**
AUTHOR(S): Laanela, H.
MINING DIV: Alberni
LOCATION: NTS 092F02W LAT. 49 12 30 LONG. 124 55 00
CLAIM(S): Skarn
EXPL. TARGET: Gold,Silver,Copper,Nickel,Lead,Zinc
WORK DONE: GEOL 350.0 ha - 7 Map(s); 1:2500,1:200,1:50
LINE 21.5 km
MAGG 21.5 km - 2 Map(s); 1:2500,1:9000
ROCK 48 sample(s);ME
SOIL 610 sample(s);ME - 3 Map(s); 1:2500

GEOLOGY: The property is underlain by Triassic volcanics, limestone, shale, argillite, and Jurassic Island Intrusives. Skarn type mineralization consisting of pyrite, pyrrhotite,chalcopyrite and bornite occurs at the contact with intrusive rocks.

RELATED A.R.: 05650, 05981, 06393, 06956, 09313, 10288
MINFILE: 092F

Stamp A.R. 17557 REPORT YEAR: 1988, 117 Pages, 10 Map(s)

OPERATOR(S): **Napier Ex.**
AUTHOR(S): Stritychuk Hopkins, J.M. Leriche, P.D.
MINING DIV: Alberni
LOCATION: NTS 092F02W LAT. 49 13 00 LONG. 124 51 00
CLAIM(S): Stamp 1-3,Holk,Gloria
EXPL. TARGET: Gold
WORK DONE: GEOL 1400.0 ha - 3 Map(s); 1:10 000,1:100
ROCK 65 sample(s);AU,ME - 1 Map(s); 1:10 000
SOIL 1055 sample(s);AU,ME - 6 Map(s); 1:10 000

GEOLOGY: The property is underlain by andesitic volcanic rocks belong to Triassic Karmutsen Formation. Three showings exist on the property and consist of 30 to 60 centimetre wide quartz veins mineralized with chalcopyrite, pyrite and pyrrhotite.

RELATED A.R.: 11337, 15038
MINFILE: 092F 155, 092F 168

KM A.R. 16782 REPORT YEAR: 1987, 38 Pages, 1 Map(s)

OPERATOR(S): **Freemont Gold**
AUTHOR(S): Zastavnikovich, S.
MINING DIV: Alberni
LOCATION: NTS 092F03E, 092F03W LAT. 49 03 41 LONG. 125 15 00
CLAIM(S): KM,KN,KQ
WORK DONE: HMIN 25 sample(s);ME - 1 Map(s); 1:10 000
ROCK 116 sample(s);ME

GEOLOGY: On the KM and KN claims, Upper Triassic Karmutsen Formation volcanics are overlain by a limestone sequence up to 400 metres thick which exhibits upward gradation into mixed sedimentary/pyroclastic rocks and flows of the Lower Jurassic Bonanza Group. A small sphalerite skarn showing is present on the KM claim. A granodiorite stock underlying the KQ claim is bordered by siliceous Bonanza Group volcanics and limestone.

Quarry A.R. 18150 REPORT YEAR: 1988, 14 Pages

OPERATOR(S): **Meyer, V.G.**
AUTHOR(S): Groves, W.D.
MINING DIV: Alberni
LOCATION: NTS 092F03E LAT. 49 03 00 LONG. 125 26 00
CLAIM(S): Quarry
EXPL. TARGET: Iron
WORK DONE: META 2 sample(s);FE,CR,VA,MN

GEOLOGY: Large gently east dipping slightly faulted magnetite (Fe3O2) lens replaces Quatsino limestone which is crosscut with garnet-actinolite skarn and magnetic andesite. Four and a half million ton were mined and shipped in the 1950's and a further 10 million tons in reserves have been drilled and blocked off but unmined in the east (down dip) extension.

MINFILE: 093F 001

Toq (Oyster) A.R. 17224 REPORT YEAR: 1988, 25 Pages, 1 Map(s)

OPERATOR(S): **Freemont Gold**
AUTHOR(S): Zastavnikovich, S.
MINING DIV: Alberni
LOCATION: NTS 092F03E, 092F03W LAT. 49 06 41 LONG. 125 21 00
CLAIM(S): Toq 3,Oyster 2,Turret
WORK DONE: SOIL 257 sample(s);ME - 1 Map(s); 1:10 000

GEOLOGY: The property is underlain by metavolcanic rocks of the Upper Triassic Karmutsen Formation and Lower-Middle Jurassic Island Intrusions. No known mineralization exists on the claims.

Viva II A.R. 17491 REPORT YEAR: 1988, 27 Pages

OPERATOR(S): **Rescan Dev.**
AUTHOR(S): Henneberry, R.T.
MINING DIV: Alberni
LOCATION: NTS 092F03E LAT. 49 17 00 LONG. 125 24 00
CLAIM(S): Viva II
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 37.5 ha
GEOLOGY: A dacitic dyke of unknown age intrudes Upper Triassic Karmutsen Formation andesites. Splay faults from the auriferous Mine fault transect the property. Mineralization has yet to be located. The claim is part of a group including the old Leora Mine.

Dom A.R. 17400 REPORT YEAR: 1988, 31 Pages, 2 Map(s)

OPERATOR(S): **Aintree Res.**
AUTHOR(S): Henneberry, R.T.
MINING DIV: Alberni
LOCATION: NTS 092F03W LAT. 49 02 24 LONG. 125 28 36
CLAIM(S): Dom,Tert 4-5
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: ROCK 51 sample(s);ME - 2 Map(s); 1:25 000,1:10 000
GEOLOGY: Tertiary quartz diorite intrudes Triassic Quatsino limestone and Jurassic Bonanza volcanics. Regional shear/fault zones transect the property at 020 degrees or 340 degrees, dipping 70 degrees east. Anomalous gold values occur within these zones, primarily within the Tertiary intrusives.
RELATED A.R.: 09646, 15637
MINFILE: 092F

Handsome A.R. 17530 REPORT YEAR: 1988, 22 Pages, 1 Map(s)

OPERATOR(S): **Freemont Gold**
AUTHOR(S): Zastavnikovich, S.
MINING DIV: Alberni
LOCATION: NTS 092F03W LAT. 49 05 00 LONG. 125 16 00
CLAIM(S): KO,KP,KR
EXPL. TARGET: Gold,Silver
WORK DONE: HMIN 44 sample(s);ME - 1 Map(s); 1:10 000
GEOLOGY: The property is underlain by rocks of the Karmutsen, Quatsino and Bonanza formations. Numerous intrusives of Jurassic age outcrop on the property. Spotty skarns at limestone contacts and very narrow quartz veins in shear zones are common. Fresher-looking intrusives may possibly be of Tertiary age.
RELATED A.R.: 12813

Kennedy River A.R. 16729 REPORT YEAR: 1987

OPERATOR(S): **Kerr Addison Mines**
AUTHOR(S): Potter, R.
MINING DIV: Alberni
LOCATION: NTS 092F03W LAT. 49 10 04 LONG. 125 23 47
CLAIM(S): Westering 1-2,Goldrim 2,Tommy,Golden Gate
WORK DONE: DIAD 1656.0 m 8 hole(s);NQ
GEOL 320.0 ha
LINE 24.0 km
ROCK 105 sample(s);AU
SAMP 900 sample(s);AU
SILT 25 sample(s);AU
SOIL 275 sample(s);AU
TOPO 3300.0 ha
GEOLOGY: A zone of sheeted auriferous quartz veinlets occur within Upper Triassic Karmutsen Formation andesites and Tertiary(?) feldspar porphyry dykes. The steeply dipping zone attains widths of up to 150 metres over a strike length of 1400 metres.
RELATED A.R.: 09606, 12767, 14279, 16474

Pym A.R. 17402 REPORT YEAR: 1988, 80 Pages, 4 Map(s)

OPERATOR(S): **Aintree Res.**
AUTHOR(S): Henneberry, R.T.
MINING DIV: Alberni
LOCATION: NTS 092F03W, 092F04E LAT. 49 01 45 LONG. 125 30 39
CLAIM(S): Pym 2,Epic,Owl,Dom
EXPL. TARGET: Gold,Silver,Lead,Zinc,Arsenic
WORK DONE: DIAD 316.6 m 3 hole(s);BQ - 1 Map(s); 1:5000
LINE 23.0 km
PROS 3000.0 ha - 1 Map(s); 1:25 000
ROAD 0.9 km
ROCK 102 sample(s);ME - 1 Map(s); 1:10 000
SAMP 27 sample(s);AU,AG
SOIL 775 sample(s);AU - 1 Map(s); 1:5000
GEOLOGY: Tertiary quartz diorite intrudes Upper Triassic Vancouver Group sediments and Jurassic volcanics. Regional shear zones transect the property at 020/70 degrees east and 340/70 degrees east. Anomalous gold values are located within these zones primarily within the Tertiary intrusives.
RELATED A.R.: 15570
MINFILE: 092F 043

Deer Bay A.R. 17284 REPORT YEAR: 1988, 46 Pages

OPERATOR(S): **Stag Ex.**
AUTHOR(S): Lambert, E.
MINING DIV: Alberni
LOCATION: NTS 092F04E LAT. 49 14 28 LONG. 125 35 25
CLAIM(S): Lorne,Crash,Noon I-II,Inlet,Super 1-3,Nickel 1,Nickel 3
EXPL. TARGET: Nickel,Copper,Gold,Platinum
WORK DONE: ROCK 38 sample(s);ME
SOIL 263 sample(s);CU,AU
GEOLOGY: Paleozoic Sicker Group rocks consisting of metabasalt and quartz-feldspar gneiss have been intruded by a Lower-Middle Jurassic quartz diorite belonging to the Island Intrusions. West-northwest trending faults occur in the area and mafic to silicic dykes occupy fractures trending northwesterly. Mineralization includes a nickel-copper-PGM showing and numerous skarn-like showings with copper, gold and silver mineralization.
RELATED A.R.: 16219
MINFILE: 092F 011, 092F 012, 092F 013, 092F 014, 092F 015, 092F 016, 092F 017, 092F 018, 092F 019, 092F 020

Freegold A.R. 17722 **REPORT YEAR: 1988, 29 Pages, 5 Map(s)**

OPERATOR(S): **Stork Ventures**
AUTHOR(S): Robertson, R.C.R.
MINING DIV: Alberni
LOCATION: NTS 092F04E LAT. 49 14 45 LONG. 125 43 00
CLAIM(S): Freegold
EXPL. TARGET: Gold
WORK DONE: EMGR 9.5 km;VLF - 2 Map(s); 1:4000
GEOL 75.0 ha - 1 Map(s); 1:4000
MAGG 9.5 km - 1 Map(s); 1:4000
ROCK 7 sample(s);AU,AG
SOIL 356 sample(s);AU,AG - 1 Map(s); 1:4000
GEOLOGY: The property is underlain by Sicker Group volcanic and sedimentary rocks which have been intruded by granitic to dioritic rocks of probable Middle Jurassic age. Gold mineralization occurs immediately north of the property in similar geology.

Yankee A.R. 17764 **REPORT YEAR: 1988, 18 Pages**

OPERATOR(S): **Wood, D.H.**
AUTHOR(S): Wood, D.H.
MINING DIV: Alberni
LOCATION: NTS 092F04E LAT. 49 13 45 LONG. 125 39 35
CLAIM(S): Yankee 1
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 500.0 ha
GEOLOGY: Northwest trending gold bearing quartz veins are associated with a northeast striking high angle fault. Minor production was carried out in 1940 and 1941.
RELATED A.R.: 12034, 13441
MINFILE: 092F 042

Buttle Lake A.R. 17003 **REPORT YEAR: 1988, 177 Pages, 13 Map(s)**

OPERATOR(S): **Cream Silver Mines**
AUTHOR(S): Dandy, L. Hatfield Consul. Walcott, P.E.
MINING DIV: Alberni
LOCATION: NTS 092F05E, 092F12E LAT. 49 29 26 LONG. 125 33 30
CLAIM(S): Cream 1-18,Bear 2,Bear 6,Bear 8,Bear 21-26,X 1-20,F 1-28,D 1-4,D 6-18
EXPL. TARGET: Silver,Copper,Zinc,Lead,Gold
WORK DONE: EMGR 23.1 km; VLF,CSAM - 3 Map(s); 1:10 000,1:1250
GEOL 1250.0 ha - 8 Map(s); 1:2500
HMIN 7 sample(s);ME
HYDG 9 sample(s)
IPOL 6.6 km
LINE 22.6 km
MAGG 5.5 km - 2 Map(s); 1:1250
SOIL 56 sample(s);ME
GEOLOGY: The claims cover the southern part of the Buttle Lake structural uplift in which Paleozoic Sicker Group rocks are bounded on the east and west by Upper Triassic Karmutsen Formation mafic volcanics and Lower-Middle Jurassic granitic Island Intrusions respectively. The Sicker Group rocks include felsic and intermediate flows, tuffs and agglomerates which are overlain by Pennsylvanian Buttle Lake Formation limestones and lesser cherts in the eastern claims area. Massive sulphide boulders with high copper, zinc and silver values have been observed along Price Creek.
RELATED A.R.: 00826, 01563, 01564, 01884, 02254, 02647, 03241, 03242, 03243, 03910, 03911, 03912
MINFILE: 092F 092, 092F 093, 092F 219, 092F 220, 092F 225, 092F 226

Maple Leaf A.R. 17589 **REPORT YEAR: 1988, 55 Pages**

OPERATOR(S): **Stetson Res. Management**
AUTHOR(S): Freeze, J.C. Wetherill, J.F.
MINING DIV: Alberni
LOCATION: NTS 092F05E LAT. 49 16 00 LONG. 125 43 00
CLAIM(S): Baycrest,Baycrest 2-3,Goldcrest 1-4,Expo 1-2
EXPL. TARGET: Gold
WORK DONE: GEOL 200.0 ha
ROCK 120 sample(s);ME
SOIL 235 sample(s);ME
GEOLOGY: The property is underlain by Pennsylvanian-Permian Sicker volcanics, which are intruded by Jurassic batholiths. Minor northeast and east-trending faults crosscut major northwest structures.
RELATED A.R.: 00115, 15551
MINFILE: 092F 039, 092F 205

Prosper A.R. 17620 **REPORT YEAR: 1988, 86 Pages**

OPERATOR(S): **Intercontinental Ventures**
AUTHOR(S): DiSpirito, F. Hulme, N.J.
MINING DIV: Alberni
LOCATION: NTS 092F05E LAT. 49 23 35 LONG. 125 44 28
CLAIM(S): Bes
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 44.7 m 3 hole(s);AX
GEOL 25.0 ha
MNGR 2 sample(s)
ROCK 45 sample(s);AU,AG,PB,ZN,CU
SOIL 116 sample(s);ME
TREN 37.5 m 3 trench(es)
GEOLOGY: The area is underlain by andesite flows, breccias and pillow basalts of the Upper Triassic Karmutsen Formation. Plagioclase phenocrysts are present in the porphyritic volcanics. Chlorite is present in all the volcanics and epidote is a common alteration mineral in the porphyritic flows and breccia. Mineralized veins are found in northeasterly trending, westerly dipping shear zones.
RELATED A.R.: 14067
MINFILE: 092F 053

Prosper A.R. 17767 **REPORT YEAR: 1988, 79 Pages, 7 Map(s)**

OPERATOR(S): **Intercontinental Ventures**
AUTHOR(S): DiSpirito, F. Hulme, N.J.
MINING DIV: Alberni
LOCATION: NTS 092F05E LAT. 49 23 00 LONG. 125 44 00
CLAIM(S): Bec,Bes,Bat 1-4,Ben 1-4,Bed,Brooklyn
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 44.7 m 3 hole(s); AX
EMGR 3.3 km; VLF - 1 Map(s); 1:2500
GEOL 25.0 ha - 1 Map(s); 1:2500
MNGR 2 sample(s)
SAMP 45 sample(s);AU,AG,CU,PB,ZN
SOIL 116 sample(s);ME - 5 Map(s); 1:2500

TREN 40.0 m 3 trench(es)
GEOLOGY: The area is underlain by andesite flow rocks, breccias and pillow basalts of the Karmutsen Formation. Plagioclase phenocrysts are present in porphyritic volcanics, chlorite is present in all volcanic rocks, and epidote is a common alteration mineral in the porphyritic flow rocks and breccia. Gold-bearing quartz veins occur in northeast trending, westerly dipping shear zones.
RELATED A.R.: 14067, 17620
MINFILE: 092F 053

Bedingfield A.R. 17670 REPORT YEAR: 1988, 14 Pages, 5 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Blackwell, J.D.
MINING DIV: Alberni
LOCATION: NTS 092F05W LAT. 49 23 01 LONG. 125 57 35
CLAIM(S): Bedingfield 10-12,Bedingfield 19
EXPL. TARGET: Silver,Gold,Copper,Lead,Zinc
WORK DONE: GEOL 300.0 ha - 5 Map(s); 1:10 000,1:2000
ROCK 29 sample(s);CU,PB,ZN,AG,AU
GEOLOGY: The property comprises an overturned suite of pyroclastic rocks belonging to the Paleozoic Sicker Group. These volcanics are unconformably overlain by the Pennsylvanian Sediment-Sill Unit and Pennsylvanian Buttle Lake Formation limestone. Upper Triassic Karmutsen Formation basalts locally cap the Buttle Lake Formation limestone.
RELATED A.R.: 16297
MINFILE: 092F

Cotter A.R. 17732 REPORT YEAR: 1988, 67 Pages

OPERATOR(S): **Palo Duro Ex.**
AUTHOR(S): Wood, D.H.
MINING DIV: Alberni
LOCATION: NTS 092F05W LAT. 49 24 25 LONG. 125 50 50
CLAIM(S): Cotter 4,Cotter 6A
EXPL. TARGET: Gold
WORK DONE: EMGR 10.0 km;VLF
GEOL 25.0 ha
LINE 10.0 km
MAGG 10.0 km
SOIL 283 sample(s);ME
TREN 40.0 m 2 trench(es)
GEOLOGY: The area is mainly underlain by Paleozoic dark green andesite with a silicified section containing a quartz vein with minor pyrite.

Cypress A.R. 16742 REPORT YEAR: 1987

OPERATOR(S): **Ord, R.S. BHP-Utah Mines**
AUTHOR(S): Duncan, D.N.
MINING DIV: Alberni
LOCATION: NTS 092F05W LAT. 49 16 04 LONG. 125 50 47
CLAIM(S): Maypay,Maypay 2,Cypress 1,Cypress 3,Headland
WORK DONE: DIAD 805.3 m 5 hole(s);NQ
EMGR 14.4 km;VLF
GEOL 253.0 ha
IPOL 9.3 km
MAGG 12.9 km
MALM 616.0 m
PITS 5 pit(s)
ROCK 70 sample(s);ME
SOIL 142 sample(s);ME
GEOLOGY: Early Paleozoic Sicker Group volcanics occur in several differentiated sequences from mafic to felsic. The units dip steeply to the northeast with some overturning due to thickening. Trace sulphides are common, with several showings of stratabound sulphides having been discovered in felsic volcaniclastics.
RELATED A.R.: 15563

Cypress A.R. 17359 REPORT YEAR: 1988, 16 Pages, 1 Map(s)

OPERATOR(S): **BHP-Utah Mines**
AUTHOR(S): Duncan, D.N.
MINING DIV: Alberni
LOCATION: NTS 092F05W LAT. 49 16 29 LONG. 125 52 09
CLAIM(S): Bay,Bay Fr.
EXPL. TARGET: Copper,Lead,Zinc,Silver
WORK DONE: GEOL 0.1 ha - 1 Map(s); 1:2500
GEOLOGY: Paleozoic Sicker Group volcanics in differentiated sequences from mafic to intermediate are intruded by a gabbro complex. The volcanics dip steeply to the northeast. Minor disseminated pyrite is present.
RELATED A.R.: 15563, 16742

Good Friday A.R. 17098 REPORT YEAR: 1988, 124 Pages, 4 Map(s)

OPERATOR(S): **Suntac Min.**
AUTHOR(S): Thomae, B. Hawkins, T.G.
MINING DIV: Alberni
LOCATION: NTS 092F05W LAT. 49 16 30 LONG. 125 55 48
CLAIM(S): Good Friday,Good Friday 2-6
EXPL. TARGET: Gold,Silver,Copper,Zinc
WORK DONE: EMGR 1.6 km; VLF
LINE 25.0 km
ROCK 31 sample(s);AU
SOIL 1041 sample(s);ME - 4 Map(s); 1:2500
GEOLOGY: The property is underlain by a northwest striking sequence of Paleozoic Sicker Group, Myra Formation volcanic and sedimentary rocks which are overlain by limestone of the Buttle Lake Formation. To the south these rocks are in contact with the Paleozoic to Mesozoic West Coast Complex amphibolites, hornfelsed volcanics and diorites. Locally, feldspar porphyritic dykes (Tertiary?) intrude the Sicker Group volcanics and sediments. A north-south trending regional fault occurs subparallel to a major creek on the Good Friday claim. A gold bearing arsenic showing occurs in a shear zone along this fault. Sulphides +/- anomalous gold values and copper occur in quartz veins, shear zones, skarns and altered volcanics.
MINFILE: 092F 154, 092F 299, 092F 344

Lazy A.R. 17728 REPORT YEAR: 1988, 163 Pages, 7 Map(s)

OPERATOR(S): **Consort Energy**
AUTHOR(S): Naas, C.
MINING DIV: Alberni
LOCATION: NTS 092F05W LAT. 49 24 00 LONG. 125 54 00
CLAIM(S): Lazy K 1-4
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper

WORK DONE:
EMGR 4.4 km;VLF - 1 Map(s); 1:2500
GEOL 1600.0 ha - 1 Map(s); 1:2500
MAGG 4.4 km - 1 Map(s); 1:2500
PETR 6 sample(s)
PROS 1600.0 ha
ROCK 156 sample(s);AU,ME - 1 Map(s); 1:2500
SILT 3 sample(s);AU,ME
SOIL 338 sample(s);AU,ME - 3 Map(s); 1:2500
TREN 30.0 m 2 trench(es)

GEOLOGY: The property is mainly underlain by Paleozoic mafic to intermediate volcanics with lesser cherty sediments, limestone and basalt. These rocks are intruded by Jurassic Island Intrusions(?) consisting of granodiorite to diorite in the western and northern areas. Tertiary feldspar and quartz feldspar porphyry dykes are found in the northern areas. Two areas of quartz-carbonate veining of altered volcanics and dykes returned up to 4000 ppb gold.

RELATED A.R.: 16224

Lazy A.R. 18037 REPORT YEAR: 1988, 169 Pages, 8 Map(s)

OPERATOR(S): **Consort Energy**
AUTHOR(S): Naas, C.
MINING DIV: Alberni
LOCATION: NTS 092F05W LAT. 49 24 00 LONG. 125 54 00
CLAIM(S): Lazy K 1-4
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE:
EMGR 4.4 km;VLF - 2 Map(s); 1:2500
GEOL 400.0 ha - 2 Map(s); 1:2500
MAGG 4.4 km - 1 Map(s); 1:2500
PETR 6 sample(s)
ROCK 141 sample(s);ME
SILT 3 sample(s);ME
SOIL 338 sample(s);ME - 3 Map(s); 1:2500
TREN 30.0 m

GEOLOGY: The property is mainly underlain by Paleozoic mafic to intermediate volcanics with lesser cherty sediments, limestone and basalt in the southwest corner. These rocks are intruded by Jurassic Island Intrusions(?) granodiorite to diorite in the western and northern areas. Tertiary feldspar and quartz feldspar porphyry dykes are found in the northern areas. Two areas of quartz-carbonate veining of altered volcanics and dykes returned up to 4000 ppb gold.

RELATED A.R.: 16224, 17728
MINFILE: 092F

Ideal A.R. 17040 REPORT YEAR: 1987, 97 Pages, 10 Map(s)

OPERATOR(S): **Metaxa Res. Stetson Res. Management**
AUTHOR(S): Henneberry, R.T.
MINING DIV: Alberni
LOCATION: NTS 092F06E, 092F07W LAT. 49 17 00 LONG. 125 02 00
CLAIM(S): Tux I-III,Ideal 1-6
EXPL. TARGET: Gold
WORK DONE:
GEOL 1000.0 ha - 1 Map(s); 1:10 000
ROCK 104 sample(s);ME - 2 Map(s); 1:10 000,1:250
SILT 52 sample(s);ME - 1 Map(s); 1:10 000
SOIL 850 sample(s);AU,AG,AS,HG,SB,PB,CU - 6 Map(s); 1:5000

GEOLOGY: The property is underlain by propylitized Upper Triassic Karmutsen Formation andesitic flows and tuffs and Quatsino Formation limestones. Mineralization of interest consists of auriferous quartz-sulphide veins ranging in width from 15 to 50 centimetres. Pyrite, chalcopyrite and arsenopyrite can total 3 per cent of vein material. Values to 28.9 grams per tonne gold have been obtained from the Ideal vein. Minimal bleaching is associated with vein emplacement.

RELATED A.R.: 13539
MINFILE: 092F 341

Men A.R. 17418 REPORT YEAR: 1988, 22 Pages, 1 Map(s)

OPERATOR(S): **Area Ex.**
AUTHOR(S): Sayer, C.J.
MINING DIV: Alberni
LOCATION: NTS 092F06E, 092F06W LAT. 49 18 26 LONG. 125 15 00
CLAIM(S): Men 1
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: PROS 100.0 ha - 1 Map(s); 1:5000

GEOLOGY: Three phases of Upper Triassic Karmutsen Formation volcanics include pillowed, fragmental and massive flows intruded by small granodiorite dykes of the Lower-Middle Jurassic Island Intrusions. The volcanics are also displaced by strike slip faulting. Epithermal veins of probable Tertiary age cut the volcanics at 050-090 degrees and may get up to 20 centimetres wide but float found indicates that some veins are larger. Mineralization is dominantly pyrite in banded quartz and carbonate gangue.

MINFILE: 092F

Morning A.R. 17420 REPORT YEAR: 1988, 20 Pages, 1 Map(s)

OPERATOR(S): **Goldsmith, L.B.**
AUTHOR(S): Goldsmith, L.B. Kallock, P.
MINING DIV: Alberni
LOCATION: NTS 092F06W LAT. 49 17 58 LONG. 125 16 09
CLAIM(S): Morning,Morning 1
EXPL. TARGET: Gold
WORK DONE:
GEOL 18.0 ha - 1 Map(s); 1:2000
ROCK 8 sample(s);AU

GEOLOGY: Upper Triassic Karmutsen Formation volcanics are intruded by Lower-Middle Jurassic Island Intrusions. Northeasterly trending quartz-sulphide veins carry appreciable quantities of gold.

MINFILE: 092F 119

Robin A.R. 17021 REPORT YEAR: 1987, 40 Pages, 2 Map(s)

OPERATOR(S): **Area Ex.**
AUTHOR(S): Sayer, C.J.
MINING DIV: Alberni
LOCATION: NTS 092F06W LAT. 49 18 01 LONG. 125 21 29
CLAIM(S): Robin 1-2
EXPL. TARGET: Gold,Copper,Lead,Zinc
WORK DONE:
GEOL 225.0 ha - 1 Map(s); 1:5000
ROCK 2 sample(s);ME
SOIL 103 sample(s);ME - 1 Map(s); 1:2000

GEOLOGY: Upper Triassic Karmutsen Formation basalts with thin units of limestone are intruded by or faulted against quartz diorites of the Jurassic Island Intrusions. Skarn development in limestone has produced small (1-5 centimetre) sections of magnetite-chalcopyrite mineralization. Shears and contacts produce thin (<50 centimetres) zones of quartz or carbonate veins with pyrite-chalcopyrite

mineralization.
MINFILE: 092F 281

Snow A.R. 17575 REPORT YEAR: 1988, 43 Pages, 2 Map(s)

OPERATOR(S): **Snowfield Res. Casau Ex.**
AUTHOR(S): Sayer, C.J.
MINING DIV: Alberni
LOCATION: NTS 092F06W LAT. 49 18 35 LONG. 125 24 50
CLAIM(S): Snow 1-2,White 2
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: LINE 1.8 km
SOIL 349 sample(s);ME - 2 Map(s); 1:2000,1:1000
GEOLOGY: Upper Triassic Karmutsen Formation basalts and Lower-Middle Jurassic granodiorite of the Island Intrusions have been faulted in east, north and northwest directions. Quartz veins of probable Tertiary age are emplaced along the faults. Mineralization includes galena, pyrite, sphalerite and chalcopyrite with gold and silver. Sulphides may be up to 60 per cent of the vein material.
RELATED A.R.: 16208, 17269, 17574

Snow A.R. 17269 REPORT YEAR: 1988, 35 Pages, 3 Map(s)

OPERATOR(S): **Snowfield Res.**
AUTHOR(S): Sayer, C.J.
MINING DIV: Alberni
LOCATION: NTS 092F06W LAT. 49 18 00 LONG. 125 25 00
CLAIM(S): Snow 1
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: DIAD 90.3 m 2 hole(s);NQ - 3 Map(s); 1:2000,1:500,1:100
SAMP 18 sample(s);ME
GEOLOGY: Upper Triassic Karmutsen Formation basalt is intruded by Jurassic granodiorite. Contacts are usually faults. Fault directions are dominantly north, northwest or east. All the rocks have undergone chloritic alteration. Epithermal gold bearing veins of probable Tertiary age cut the volcanics and intrusives. Veins are dominantly quartz with some carbonate and sulphides up to 80 per cent. These sulphides include pyrite, galena, sphalerite and some chalcopyrite. The largest vein is almost 1 metre wide trending 140 degrees. There is little alteration associated with the veins.
RELATED A.R.: 16208
MINFILE: 092F

Snow A.R. 17574 REPORT YEAR: 1988, 53 Pages, 2 Map(s)

OPERATOR(S): **Snowfield Res.**
AUTHOR(S): Sayer, C.J.
MINING DIV: Alberni
LOCATION: NTS 092F06W LAT. 49 18 34 LONG. 125 24 52
CLAIM(S): Snow 1
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: DIAD 61.8 m 1 hole(s);NQ - 1 Map(s); 1:100
ROCK 72 sample(s);ME
TREN 180.0 m 8 trench(es) - 1 Map(s); 1:500,1:250,1:100
GEOLOGY: Upper Triassic Karmutsen Formation basalts and Lower-Middle Jurassic granodiorites of the Island Intrusions are faulted in east, north and northwest directions. Quartz veins of probable Tertiary age are emplaced along the faults. Vein mineralization includes galena, pyrite, sphalerite and chalcopyrite with gold and silver. Sulphides may be up to 60 per cent of the vein material.
RELATED A.R.: 16208, 17269
MINFILE: 092F

Tay A.R. 17088 REPORT YEAR: 1988, 40 Pages, 17 Map(s)

OPERATOR(S): **Dalmatian Res.**
AUTHOR(S): Mark, D.G.
MINING DIV: Alberni
LOCATION: NTS 092F06W LAT. 49 18 01 LONG. 125 16 40
CLAIM(S): Tay 1-4,Tay 9,Tay 13-14
EXPL. TARGET: Gold,Copper
WORK DONE: EMGR 7.5 km;HLEM - 2 Map(s); 1:2000
IPOL 6.2 km - 15 Map(s); 1:1000
GEOLOGY: The claims are mostly underlain by dark green Upper Triassic Karmutsen Formation andesites intruded by quartz diorite of the Island Intrusions. Fracture systems strike (1) 90 to 100 degrees, (2) 340 to 360 degrees, steeply dipping and (3) 90 to 100 degrees, nearly horizontal. Mineralization consists of pyrite, chalcopyrite and arsenopyrite with gold values.
RELATED A.R.: 05698, 07191, 07963, 09596, 11726, 14121, 14601, 16705
MINFILE: 092F 212

Tay A.R. 16705 REPORT YEAR: 1987

OPERATOR(S): **Dalmatian Res.**
AUTHOR(S): Cukor, V.
MINING DIV: Alberni
LOCATION: NTS 092F06W LAT. 49 17 53 LONG. 125 16 33
CLAIM(S): Tay 1-2,Tay 10-12
WORK DONE: DIAD 484.6 m 6 hole(s);BQ
SAMP 132 sample(s);AU,AG
GEOLOGY: The predominant rock type on the claims are Upper Triassic Karmutsen Formation andesites. Widespread chloritization, epidotization and pyritization, often accompanied with quartz fracture-fillings and/or irregular patches, appear mostly in the vicinity of dioritic intrusive bodies.
RELATED A.R.: 05698, 07191, 07963, 09596, 11726, 14121, 14601

Tay Gold A.R. 17037 REPORT YEAR: 1987, 69 Pages, 1 Map(s)

OPERATOR(S): **Dalmatian Res.**
AUTHOR(S): Cukor, V.
MINING DIV: Alberni
LOCATION: NTS 092F06W LAT. 49 18 01 LONG. 125 16 40
CLAIM(S): Tay 2
EXPL. TARGET: Gold
WORK DONE: DIAD 484.6 m 6 hole(s);BQ - 1 Map(s); 1:2000
SAMP 134 sample(s);AU,AG
GEOLOGY: Upper Triassic Karmutsen Formation volcanics (andesite) are intruded by a dioritic stock and dykes. Gold values are found in quartz-carbonate veins following an east and/or northeast fracture system.
RELATED A.R.: 05698, 07191, 07963, 09596, 11726, 14121, 14601, 16705, 17088
MINFILE: 092F 212

White A.R. 17708 REPORT YEAR: 1988, 18 Pages, 1 Map(s)

OPERATOR(S): **Casau Ex.**
AUTHOR(S): Sayer, C.J.
MINING DIV: Alberni
LOCATION: NTS 092F06W LAT. 49 18 00 LONG. 125 25 00
CLAIM(S): White 1
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: PROS 100.0 ha - 1 Map(s); 1:2000
GEOLOGY: Basalts of the Triassic Karmutsen Formation are intruded by granodiorites of the Jurassic Island Intrusions. Tertiray faulting and hydrothermal activity has emplaced mineralized quartz veins. Mineralization includes pyrite, sphalerite, galena and chalcopyrite with significant gold and silver values. Veins generally run in a north-northwest direction.
RELATED A.R.: 16208, 17269, 17574, 17575
MINFILE: 092F

Cave A.R. 17730 REPORT YEAR: 1988, 31 Pages, 2 Map(s)

OPERATOR(S): **Nexus Res.**
AUTHOR(S): Walker, J.E.
MINING DIV: Nanaimo
LOCATION: NTS 092F07E LAT. 49 20 00 LONG. 124 43 00
CLAIM(S): Cave 1,Horne 5-6
EXPL. TARGET: Gold,Antimony
WORK DONE: ROCK 20 sample(s);ME
SILT 80 sample(s);ME - 2 Map(s); 1:10 000
GEOLOGY: A complex sequence of Sicker Group volcanic and sedimentary rocks are exposed on the southern shore of Horne Lake. A series of north trending shears host quartz veins which may contain semi-massive to massive stibnite.
RELATED A.R.: 16197
MINFILE: 092F 243

Horne A.R. 17474 REPORT YEAR: 1988, 50 Pages, 1 Map(s)

OPERATOR(S): **Nexus Res.**
AUTHOR(S): Cope, G.R.
MINING DIV: Nanaimo
LOCATION: NTS 092F07E LAT. 49 17 22 LONG. 124 40 46
CLAIM(S): Horne 1-4
EXPL. TARGET: Arsenic,Silver,Zinc,Gold
WORK DONE: GEOL 500.0 ha - 1 Map(s); 1:10 000
ROCK 12 sample(s);ME
GEOLOGY: The property is underlain by Paleozoic Sicker Group rocks including the Myra Formation and Nitinat Formation. A major north-northwest trending regional fault structure crosses the property. Zones of heavy quartz-carbonate alteration associated with the fault have returned anomalous values in gold, arsenic, silver and zinc from rock sampling.
RELATED A.R.: 14941, 16118

Stokes A.R. 17230 REPORT YEAR: 1988, 86 Pages, 6 Map(s)

OPERATOR(S): **Westmin Res.**
AUTHOR(S): Lyons, E.M. Bundred, O.
MINING DIV: Alberni
LOCATION: NTS 092F07E LAT. 49 16 00 LONG. 124 41 00
CLAIM(S): Stokes,Oets 2
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: LINE 55.6 km
SOIL 2038 sample(s);ME - 6 Map(s); 1:2500
GEOLOGY: The property is underlain by the middle to upper portion of the Myra Formation. The dominant rocks are pillow basalts with chert horizons and interstices, and an overlying succession of tuffs. Bedding and foliation dip steeply to the northeast.

Frisky A.R. 17301 REPORT YEAR: 1987, 30 Pages

OPERATOR(S): **Perry, R.A.**
AUTHOR(S): Perry, R.A.
MINING DIV: Nanaimo
LOCATION: NTS 092F09E, 092F09W LAT. 49 35 50 LONG. 124 15 00
CLAIM(S): Frisky 7
EXPL. TARGET: Copper,Zinc,Lead,Tungsten,Gold,Silver
WORK DONE: LINE 8.7 km
SILT 3 sample(s);AU
SOIL 93 sample(s);AU
SPOT 3.8 km
TREN 22.0 m 4 trench(es)
GEOLOGY: Upper Triassic Karmutsen Formation basalt and andesite have been intruded by at least two diorite stocks. Major faulting and shearing has occurred at and near the intrusive contacts. Significant mineralization exists in the form of mineralized contact metasomatic quartz veins within both the volcanic and intrusive rock units. Significant mineralization of epithermal origin occurs as disseminations within wide shear zones hosting iron and quartz carbonate veining.

Angel A.R. 17685 REPORT YEAR: 1988, 29 Pages, 1 Map(s)

OPERATOR(S): **Rhyolite Res.**
AUTHOR(S): Kowalchuk, J.M.
MINING DIV: Nanaimo
LOCATION: NTS 092F09W LAT. 49 37 00 LONG. 124 17 00
CLAIM(S): Angel 1-4,Long B 25
EXPL. TARGET: Gold,Silver
WORK DONE: HMIN 7 sample(s);ME
PROS 450.0 ha - 1 Map(s); 1:10 000
ROCK 40 sample(s);AU,AG,CU,PB,ZN
GEOLOGY: Upper Triassic Karmutsen volcanics are intruded by diorite plugs to the east. The whole sequence is cut by large regional shear zones, which show extensive quartz-carbonate alteration,abundant pyrite and some chalcopyrite. Gold occurs in quartz stringers.
RELATED A.R.: 09264, 13747
MINFILE: 092F

Bolt A.R. 17692 REPORT YEAR: 1988, 29 Pages

OPERATOR(S): **Cukor, D.**
AUTHOR(S): Cukor, D.
MINING DIV: Nanaimo
LOCATION: NTS 092F09W LAT. 49 42 00 LONG. 124 29 00
CLAIM(S): Bolt 1-2

WORK DONE: EMGR 1.9 km;VLF
MAGG 1.9 km
GEOLOGY: The property located on Texada Island has skarn developed in a contact zone of Upper Triassic Quatsino Formation limestone and Middle or Upper Jurassic Island Intrusives. The contact zone strikes northeast and contains massive magnetite, pyrite and chalcopyrite.
RELATED A.R.: 13912

Connoisseur A.R. 17995 REPORT YEAR: 1988, 53 Pages, 3 Map(s)

OPERATOR(S): **Murphy, D.W.**
AUTHOR(S): Newman, J.E.
MINING DIV: Nanaimo
LOCATION: NTS 092F09W LAT. 49 41 00 LONG. 124 22 00
CLAIM(S): Connoisseur,Brennan,Spud,Russ,North Pole
EXPL. TARGET: Gold
WORK DONE: PROS 500.0 ha - 2 Map(s); 1:3000,1:5000
ROCK 8 sample(s);ME
SOIL 138 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: The property is underlain by Upper Triassic Karmutsen Formation pillow lavas, breccias and tuffs. Mineralization found in an old trench is comprised of magnetite, pyrite, chalcopyrite, arsenopyrite and hematite in a quartz carbonate shear. Anomalous gold values were outlined near the old trenches.
MINFILE: 092F 305

Grad A.R. 17693 REPORT YEAR: 1988, 29 Pages

OPERATOR(S): **Cukor, D.**
AUTHOR(S): Cukor, D.
MINING DIV: Nanaimo
LOCATION: NTS 092F09W LAT. 49 42 00 LONG. 124 26 00
CLAIM(S): Grad
WORK DONE: EMGR 3.5 km;VLF
MAGG 3.5 km
GEOLOGY: The property is underlain by Upper Triassic Karmutsen volcanics which have been intruded and hydrothermally altered in vicinity of a contact zone by Middle or Upper Jurassic Island volcanics. The main showing shows signs of hydrothermal alteration and the mineralization consists of magnetite and pyrite, with minor chalcopyrite.
RELATED A.R.: 13911, 14862

Merridian A.R. 17996 REPORT YEAR: 1988, 49 Pages, 1 Map(s)

OPERATOR(S): **Murphy, D.W.**
AUTHOR(S): Newman, J.E.
MINING DIV: Nanaimo
LOCATION: NTS 092F09W LAT. 49 43 00 LONG. 124 24 00
CLAIM(S): Merridian,South Pole
EXPL. TARGET: Gold
WORK DONE: SOIL 138 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: The property is underlain by dark green, fine-grained Upper Triassic Karmutsen Formation volcanics. These volcanics have been intruded by a quartz diorite intrusive. Amphibolite alteration was noted near the contact.

Pocahontas Bay A.R. 17947 REPORT YEAR: 1988, 96 Pages, 3 Map(s)

OPERATOR(S): **BP Res. Can.**
AUTHOR(S): Findlay, A.R. Hoffman, S.J.
MINING DIV: Nanaimo
LOCATION: NTS 092F09W, 092F10E LAT. 49 44 00 LONG. 124 30 00
CLAIM(S): Good Hope Fr.,Protection,Magic 1-2,Poki,Lapilli,Massaba,Lucky Lead,Copper Cave,Stobie Fr.,Trio
EXPL. TARGET: Gold,Copper
WORK DONE: GEOL 600.0 ha - 1 Map(s); 1:10 000
LINE 60.9 km
ROCK 12 sample(s);ME
SOIL 1218 sample(s);ME - 2 Map(s); 1:10 000
GEOLOGY: The property is underlain largely by Karmutsen basalts, cut by several small coeval diabase bodies and by a Jurassic(?) diorite stock. The more significant mineral showings include gold, copper in a narrow pyritic shear zone, and in a massive sulphide body of uncertain origin, both within basalt; and magnetite and pyrrhotite, locally with gold, copper in variably altered and deformed basalt close to major faults.
MINFILE: 092F 272, 092F 273

Mel A.R. 17586 REPORT YEAR: 1988, 19 Pages

OPERATOR(S): **Tiffany Res.**
AUTHOR(S): Wares, R.
MINING DIV: Nanaimo
LOCATION: NTS 092F10E LAT. 49 43 28 LONG. 124 30 44
CLAIM(S): Mel 1,Mel 3-4
WORK DONE: GEOL 25.0 ha
ROCK 8 sample(s);ME
SILT 7 sample(s);ME
SOIL 34 sample(s);ME
GEOLOGY: Several fault linears cutting Upper Triassic Karmutsen Formation basalts have weak bleaching and alteration associated with them. The linears trend northerly and parallel a fault zone that separates carbonates and Karmutsen Formation volcanics on the western edge of the claim group.

Texada A.R. 16702 REPORT YEAR: 1987

OPERATOR(S): **Rhyolite Res.**
AUTHOR(S): Grainger Res.
MINING DIV: Nanaimo
LOCATION: NTS 092F10E, 092F15E LAT. 49 43 57 LONG. 124 34 07
CLAIM(S): Bolivar 24,Holly
WORK DONE: META 3 sample(s)
SAMP 310 sample(s);AU
TREN 710.0 m 21 trench(es)
GEOLOGY: Gold bearing pyritic quartz vein structures occur in complex fracture, breccia and shear zones within basaltic flows of the Upper Triassic Karmutsen Formation.
RELATED A.R.: 05019, 05645, 05693, 05898, 06842, 11826, 14827

B.W. A.R. 17093 REPORT YEAR: 1988, 41 Pages, 2 Map(s)

OPERATOR(S): **Brown, H.W.**
AUTHOR(S): Brown, H.W.
MINING DIV: Nanaimo
LOCATION: NTS 092F11E LAT. 49 40 17 LONG. 125 10 47

CLAIM(S): B.W. 4

EXPL. TARGET: Gold,Silver,Mercury,Zinc,Copper,Antimony

WORK DONE: EMGR 7.8 km;VLF - 1 Map(s); 1:5000

LINE 7.8 km

PROS 300.0 ha - 1 Map(s); 1:5000

ROCK 4 sample(s);AU,HG

SOIL 64 sample(s);AS

GEOLOGY: The claim appears to be underlain by Upper Triassic Karmutsen Formation rocks. Carbonate alteration occurs in a tabular, flat-lying epithermal system consisting of cherty siltstone grading to silicified breccia. Banding of the zone is most evident in the main showing. Strike length is over 800 metres.

MINFILE: 092F

Bevan A.R. 17777 REPORT YEAR: 1988, 29 Pages, 5 Map(s)

OPERATOR(S): **Noranda Ex.**

AUTHOR(S): McIntyre, T.J. Wilson, R.G.

MINING DIV: Nanaimo

LOCATION: NTS 092F11E LAT. 49 41 03 LONG. 125 07 40

CLAIM(S): Bevan 1-3

EXPL. TARGET: Copper,Gold

WORK DONE: GEOL 2000.0 ha - 1 Map(s); 1:10 000

HMIN 5 sample(s);CU,AG,AS,PB,ZN,MO,AU

LINE 14.9 km

ROCK 21 sample(s);CU,AG,AS,PB,ZN,MO,AU

SILT 23 sample(s);CU,AG,AS,PB,ZN,MO,AU

SOIL 409 sample(s);CU,AG,AS,PB,ZN,MO,AU - 4 Map(s); 1:10 000

GEOLOGY: The claims are underlain by Upper Triassic and older Karmutsen Formation volcanics. The volcanic series consists of pillow basalts, tuff and breccia of intermediate to mafic composition. Copper and gold anomalies are associated with pyrite, pyrrhotite and chalcopyrite mineralization. The mineralization occurs in shallow to steeply dipping quartz veins and siliceous altered zones two to three metres in width.

RELATED A.R.: 17093

Bevan A.R. 17102 REPORT YEAR: 1988, 25 Pages, 3 Map(s)

OPERATOR(S): **Noranda Ex.**

AUTHOR(S): McIntyre, T.J. Wilson, R.G.

MINING DIV: Nanaimo

LOCATION: NTS 092F11E LAT. 49 42 00 LONG. 125 12 00

CLAIM(S): BW 2-3

EXPL. TARGET: Copper,Gold

WORK DONE: GEOL 2.0 ha - 1 Map(s); 1:10 000

ROCK 15 sample(s);CU,AG,AS,AU

SILT 18 sample(s);CU,AG,AS,AU

SOIL 38 sample(s);CU,AG,AS,AU - 2 Map(s); 1:10 000

GEOLOGY: The Bevan group is underlain by Upper Triassic and older Karmutsen volcanics. The volcanic series here is basalts of intermediate to basic composition, pillows, tuff, and breccia. Copper and gold anomalies are associated with pyrite, pyrrhotite, and siliceous altered zones, two to three metres in width, and are shallow to steeply dipping.

MINFILE: 092F 222

Dove A.R. 17500 REPORT YEAR: 1988, 91 Pages, 12 Map(s)

OPERATOR(S): **Visible Gold Westmin Res.**

AUTHOR(S): Wright, R.L.

MINING DIV: Nanaimo

LOCATION: NTS 092F11E, 092F14E, 092F14W LAT. 49 47 09 LONG. 125 14 25

CLAIM(S): Ideal 1-21,Harmony 1-16

EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc,Arsenic

WORK DONE: EMAB 500.0 km;HLEM - 6 Map(s); 1:10 000

LINE 57.4 km

MAGA 500.0 km - 6 Map(s); 1:10 000

GEOLOGY: Epithermal style gold-silver mineralization occurs in veins and breccia bodies associated with Tertiary dacitic intrusions into Upper Triassic Karmutsen Formation basalts overlain by Upper Cretaceous Nanaimo Group conglomerates, sandstones, shale and coal measures.

Faith Lake A.R. 16866 REPORT YEAR: 1987, 101 Pages, 1 Map(s)

OPERATOR(S): **Falconbridge**

AUTHOR(S): Fournier, J.D. Beekmann, J.

MINING DIV: Nanaimo

LOCATION: NTS 092F11W LAT. 49 39 13 LONG. 125 24 45

CLAIM(S): Rim 1-12

EXPL. TARGET: Gold

WORK DONE: EMGR 5.6 km;VLF

GEOL 300.0 ha - 1 Map(s); 1:2000

IPOL 5.6 km

LINE 5.6 km

MAGG 5.6 km

ROCK 173 sample(s);ME

SOIL 47 sample(s);AU,AS

TOPO 300.0 ha

GEOLOGY: Gold mineralization is hosted by chalcopyrite and arsenopyrite within veins and fault breccias. Country rocks are Upper Triassic Karmutsen Formation subaqueous basalts.

MINFILE: 092F 240

Gem Lake A.R. 17002 REPORT YEAR: 1987, 48 Pages, 1 Map(s)

OPERATOR(S): **Falconbridge**

AUTHOR(S): Beekmann, J. Fournier, J.D.

MINING DIV: Nanaimo

LOCATION: NTS 092F11W LAT. 49 41 00 LONG. 125 24 00

CLAIM(S): Meg 1-8

EXPL. TARGET: Gold,Copper

WORK DONE: GEOL 200.0 ha - 1 Map(s); 1:5000

ROCK 47 sample(s);ME

TOPO 200.0 ha

GEOLOGY: Gold mineralization with chalcopyrite occurs within a fault breccia. The country rocks are Tertiary intrusive breccia and basaltic volcanics.

MINFILE: 092F 239

Joe Anne A.R. 17096 REPORT YEAR: 1988, 35 Pages, 5 Map(s)

OPERATOR(S): **Noranda Ex.**

AUTHOR(S): Bull, D.R. Frew, C.D. Wilson, R.G.

MINING DIV: Nanaimo

LOCATION: NTS 092F11W, 092F14W LAT. 49 44 00 LONG. 125 22 00

CLAIM(S): Joe Anne II,Joe Anne 6

EXPL. TARGET: Arsenic,Copper,Gold,Silver
WORK DONE: GEOL 300.0 ha - 1 Map(s); 1:5000
LINE 28.3 km
ROCK 48 sample(s);AU,AG,AS,CU
SILT 28 sample(s);AU,AG,AS,CU
SOIL 758 sample(s);AU,AG,AS,CU - 4 Map(s); 1:5000

GEOLOGY: Flat-lying Upper Triassic Karmutsen Formation basalt is unconformably overlain by flat-lying Upper Cretaceous Comox Formation sedimentary rocks. Tertiary diorite have intruded along this contact resulting in diatreme breccias and hornfelsing of the surrounding sedimentary rocks. Mineralization in the breccias and hornfels include pyrite, pyrrhotite and minor chalcopyrite.

RELATED A.R.: 13952
MINFILE: 092F 329

Buttle Lake A.R. 17641 REPORT YEAR: 1988, 150 Pages

OPERATOR(S): **Cream Silver Mines**
AUTHOR(S): Tomlinson, S.
MINING DIV: Alberni
LOCATION: NTS 092F12E LAT. 49 32 34 LONG. 125 34 13
CLAIM(S): X 1-2
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 2164.0 m 4 hole(s);NQ
RECL
SAMP 92 sample(s);CU,PB,ZN,AG,AU

GEOLOGY: The claims cover the southern part of the Buttle Lake structural uplift in which Paleozoic Sicker Group rocks are bounded on the east and west by Upper Triassic Karmutsen Formation mafic volcanics and Lower-Middle Jurassic Island Intrusions granite respectively. The Sicker Group rocks include felsic and intermediate flows, tuffs and agglomerates which are overlain by Pennsylvanian Buttle Lake Formation limestones and lesser cherts in the eastern claims area. Massive sulphide boulders with high copper, zinc and silver values have been observed along Price Creek.

RELATED A.R.: 16747
MINFILE: 092F 198

Buttle Lake A.R. 16747 REPORT YEAR: 1987

OPERATOR(S): **Cream Silver Mines**
AUTHOR(S): Dandy, L.
MINING DIV: Alberni
LOCATION: NTS 092F12E, 092F05E LAT. 49 32 10 LONG. 125 32 50
CLAIM(S): Cream 1-15,Cream 18,Bear 6,Bear 25-26,Cream 1E-6E,X 1-4,X 7-9,X 20,D 1-2,D 7-12
WORK DONE: EMGR 23.1 km;HLEM
GEOL 350.0 ha
HMIN 9 sample(s);ME
HYDG 9 sample(s)
IPOL 6.6 km
LINE 36.0 km
MAGG 5.5 km
ROCK 11 sample(s);ME
SOIL 57 sample(s);ME

GEOLOGY: The eastern claims area are underlain by Paleozoic Sicker Group felsic-intermediate flows, tuffs and agglomerates which are overlain by Pennsylvanian Buttle Lake Formation limestones, lesser cherts and argillites. These are in turn overlain unconformably by Upper Triassic Karmutsen Formation mafic volcanics. Granitic to dioritic dykes, related to the Lower-Middle Jurassic Island Intrusions are numerous, particularly in the southern claims area. Mafic dykes are also present.

RELATED A.R.: 00826, 01563, 01564, 01884, 02254, 02647, 03241, 03242, 03243, 03910, 03911, 03912

Bacon A.R. 17395 REPORT YEAR: 1988, 20 Pages

OPERATOR(S): **Tessolini, R.**
AUTHOR(S): Brownlee, D.J.
MINING DIV: Nanaimo
LOCATION: NTS 092F13E LAT. 49 58 06 LONG. 125 37 25
CLAIM(S): Bacon
EXPL. TARGET: Iron,Copper,Cobalt,Gold
WORK DONE: ROCK 8 sample(s);CU,CO,FE,AG,AU

GEOLOGY: Granodiorite/quartz diorite intrudes Triassic and/or Jurassic limestone and andesitic volcanic rocks. Skarns formed at intrusive contacts comprise both an epidote-diopside-chlorite assemblage and massive magnetite with minor pyrite and chalcopyrite and up to 1.08 per cent cobalt and 22.9 grams per tonne gold.

RELATED A.R.: 16321
MINFILE: 092F 256

Julia A.R. 17405 REPORT YEAR: 1988, 24 Pages

OPERATOR(S): **Sawiuk, M.**
AUTHOR(S): Brownlee, D.J.
MINING DIV: Nanaimo
LOCATION: NTS 092F13W LAT. 49 59 00 LONG. 125 38 00
CLAIM(S): Julia
WORK DONE: PETR 3 sample(s)
ROCK 10 sample(s);ME

GEOLOGY: Copper, zinc, silver and gold mineralization is hosted by a fractured gabbro which has been altered by quartz-sericite +/- chlorite and magnetite.

MINFILE: 092F

Mt. Washington A.R. 17033 REPORT YEAR: 1988, 42 Pages, 1 Map(s)

OPERATOR(S): **Better Res.**
AUTHOR(S): Bristow, J.F.
MINING DIV: Nanaimo
LOCATION: NTS 092F14E, 092F14W LAT. 49 46 30 LONG. 125 15 00
CLAIM(S): MWC 151
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: DIAD 384.9 m 6 hole(s); BQ, NQ - 1 Map(s); 1:2500,1:500
SAMP 27 sample(s);CU,AU,AG

GEOLOGY: The Mt. Washington area is comprised of Triassic Karmutsen volcanics overlain by sediments of the Cretaceous Comox Formation. Breccia pipes of various sizes and possible ages pierce both formations and are diversely mineralized. Gently west dipping unusually continuous structures accompanied by alterations and silicification form the host for the gold, silver, arsenic mineralization.

MINFILE: 092F 206

Murex A.R. 18119 REPORT YEAR: 1988, 39 Pages, 15 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Bull, D.R. Bradish, L.
MINING DIV: Nanaimo
LOCATION: NTS 092F14E LAT. 49 46 00 LONG. 125 14 00
CLAIM(S): Fox 1-3,HKR 1-7,Mike 6-7,McKay 1,Murex 1,Mink 1-8,MWC 101-106
EXPL. TARGET: Copper,Gold,Silver
WORK DONE: EMGR 10.5 km; HL - 1 Map(s); 1:2500
GEOL 185.0 ha - 2 Map(s); 1:5000,1:500
IPOL 1.1 km - 1 Map(s); 1:2500
LINE 58.0 km - 1 Map(s); 1:5000
MAGG 9.5 km - 2 Map(s); 1:2500
SOIL 250 sample(s);CU,AG,AU,AS - 8 Map(s); 1:5000
GEOLOGY: The Murex Group is underlain by Triassic and older Karmutsen Formation mafic volcanics. These rocks are unconformably overlain by Cretaceous Nanaimo Group detrital sedimentary rocks. Dioritic intrusives of Tertiary age have produced breccias and vein systems which bear copper, gold and silver mineralization.
MINFILE: 092F 206

Mt. Washington A.R. 17123 REPORT YEAR: 1988, 387 Pages, 2 Map(s)

OPERATOR(S): **Better Res.**
AUTHOR(S): Bristow, J.F.
MINING DIV: Nanaimo
LOCATION: NTS 092F14W LAT. 49 45 29 LONG. 125 18 15
CLAIM(S): DJV 3,DJV 5,MWC 206,MWC 212,MWC 222 Fr.
EXPL. TARGET: Gold,Silver,Copper,Iron,Arsenic
WORK DONE: DIAD 5420.0 m 84 hole(s);NQ - 2 Map(s); 1:1200
ROAD 1.0 km
SAMP 1070 sample(s);AU,AG,AS
GEOLOGY: The Mt. Washington area is comprised of Upper Triassic Karmutsen Formation volcanics overlain by sediments of the Upper Cretaceous Comox Formation. Breccia pipes of various sizes and possible ages pierce both formations and are diversely mineralized. Gently west dipping, usually continuous structures accompanied by alteration and silicification, form the host for gold, silver and arsenic mineralization.
MINFILE: 092F 116

Mt. Washington A.R. 17181 REPORT YEAR: 1988, 110 Pages, 3 Map(s)

OPERATOR(S): **Better Res.**
AUTHOR(S): Bristow, J.F.
MINING DIV: Nanaimo
LOCATION: NTS 092F14W LAT. 49 45 27 LONG. 125 18 02
CLAIM(S): Domineer 1,Domineer 3-4,Domineer 6,MWC 232
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: DIAD 2651.6 m 22 hole(s);NQ - 3 Map(s); 1:2000,1:1200
SAMP 229 sample(s);AU,AG,AS
GEOLOGY: The Mt. Washington area is comprised of Upper Triassic Karmutsen Formation volcanics and overlying sediments of the Upper Cretaceous Comox Formation. Breccia pipes of various sizes, shapes and possible ages pierce both formations and are diversely mineralized. Gently west-dipping unusually continuous structures, accompanied by alteration and silicification, form the host for gold-silver-arsenic mineraliztion.
RELATED A.R.: 17123
MINFILE: 092F 116

Mt. Washington A.R. 17193 REPORT YEAR: 1988, 70 Pages, 7 Map(s)

OPERATOR(S): **Better Res.**
AUTHOR(S): Bristow, J.F.
MINING DIV: Nanaimo
LOCATION: NTS 092F14W LAT. 49 46 45 LONG. 125 18 07
CLAIM(S): MWC 201,MWC 223-230,Stout
EXPL. TARGET: Gold,Silver,Copper,Iron,Arsenic
WORK DONE: DIAD 422.8 m 9 hole(s);NQ - 1 Map(s); 1:500,1:200
GEOL 134.0 ha - 1 Map(s); 1:1200
LINE 25.4 km
MAGG 25.4 km - 2 Map(s); 1:2500
SAMP 66 sample(s);AU,AG
SOIL 520 sample(s);AU,AS - 3 Map(s); 1:2500
GEOLOGY: The Mt. Washington area is comprised of Upper Triassic Karmutsen Formation volcanics overlain by sediments of the Upper Cretaceous Comox Formation. Breccia pipes of various sizes and possible ages pierce both formations and are diversely mineralized. Gently west dipping, unusually continuous structures accompanied by alteration and silicification form the host for the gold-silver-arsenic mineralization.
MINFILE: 092F 365

Mt. Washington A.R. 16762 REPORT YEAR: 1987

OPERATOR(S): **Better Res.**
AUTHOR(S): Bristow, J.F.
MINING DIV: Nanaimo
LOCATION: NTS 092F14W LAT. 49 45 29 LONG. 125 18 15
CLAIM(S): MWC 206,MWC 212,MWC 222,MWC 232,DJV 3,Domineer 4,Domineer 6
WORK DONE: DIAD 5420.0 m 84 hole(s);NQ
SAMP 1070 sample(s);AU,AG,AS
GEOLOGY: A thick sequence of Upper Triassic Karmutsen Formation volcanics overlain by sediments of the Upper Cretaceous Comos Formation are intruded by feldspar porphyry and diorite dykes and sills of Tertiary age. These in turn are pierced by breccia systems of various composition, size, shape and possibly of different ages. The most extensive zones of mineralization are associated with gently west dipping continuous shear structures.
RELATED A.R.: 05980, 06407, 06930, 09445, 11995, 11996, 12604, 12605, 14085, 14705, 15228, 15395, 15765, 1582

Lund A.R. 17707 REPORT YEAR: 1988, 12 Pages, 1 Map(s)

OPERATOR(S): **Rhyolite Res.**
AUTHOR(S): Kowalchuk, J.M.
MINING DIV: Vancouver
LOCATION: NTS 092F15E LAT. 49 56 49 LONG. 124 41 50
CLAIM(S): Lund 1-4
EXPL. TARGET: Lead,Zinc,Silver,Copper,Gold
WORK DONE: SPOT 3.2 km - 1 Map(s); 1:750
GEOLOGY: Limestone roof pendants surrounded by Upper Cretaceous Coast Plutonic Complex diorites have been metasomatized to develop magnetite-chalcopyrite and sphalerite-galena bearing skarn.
RELATED A.R.: 04961, 05439, 06258, 08003, 10321, 13808, 16179

ALBERNI 092F

MINFILE: 092F 147

Texada Island A.R. 16749 REPORT YEAR: 1987

OPERATOR(S): **Vananda Gold**
AUTHOR(S): Hardy, J.
MINING DIV: Nanaimo
LOCATION: NTS 092F15E, 092F10E LAT. 49 45 08 LONG. 124 32 52
CLAIM(S): Lot 40,Lots 515-516,Lot 520,Lots 523-524
WORK DONE: GEOL 400.0 ha
ROCK 200 sample(s);ME
SOIL 600 sample(s);MO,CU,PB,CO,AS,AU
SPOT 6.0 km
TREN 270.0 m 6 trench(es)

GEOLOGY: The property is underlain by Upper Triassic Karmutsen Formation andesites and basalts overlain by Upper Triassic Quatsino Formation limestone. Both volcanics and sediments are cut by at least two types of intrusive rocks. Mineralization occurs within skarns located near the contacts of limestones, volcanics and intrusives.

RELATED A.R.: 05077, 08004, 09300, 14425, 15750, 16104

Kelly A.R. 17616 REPORT YEAR: 1988, 228 Pages

OPERATOR(S): **Brenda Mines**
AUTHOR(S): Currie, J.
MINING DIV: Vancouver
LOCATION: NTS 092F16W LAT. 49 48 00 LONG. 124 25 00
CLAIM(S): Kelly 2-4
EXPL. TARGET: Kaolinite
WORK DONE: MAGG 10.5 km
PERD 2100.0 m 27 hole(s);76mm
RADP 445.0 m
REST 11.0 km
ROAD 1.0 km
SEIS 6.7 km
TOPO 200.0 ha

GEOLOGY: The geological sequence consists of basement granitoid rocks of the Coast Plutonic Complex of Jurassic-Cretaceous age which are unconformably overlain by the Brown Beds formation a cyclothemic sequence of carbonaceous clays, indurated mudstones, siltstones, shales, conglomerates and minor lignitic coal lenses. It is suggested that these sediments are Late Cretaceous in age. They are confined to a sedimentary basin approximately five kilometres across whose depth has not been determined. The property is known to contain reserves of kaolin and values of gallim and germanium associated with the lignite.

RELATED A.R.: 10384, 11263, 14303, 14872, 15836, 16734
MINFILE: 092F 137

Lang Bay A.R. 16734 REPORT YEAR: 1987

OPERATOR(S): **Fargo Res.**
AUTHOR(S): Currie, J.
MINING DIV: Vancouver
LOCATION: NTS 092F16W LAT. 49 48 37 LONG. 124 24 24
CLAIM(S): Kelly 2,Kelly 4
WORK DONE: MAGG 10.5 km
META 4 sample(s)
RADP 412.7 m
REST 10.0 km
ROTD 1497.2 m 27 hole(s)
SEIS 6.7 km

GEOLOGY: The property is underlain by a basin of thin bedded Eocene sedimentary rocks composed of poorly to well consolidated shales, sandstones, arkose and conglomerates. The basin is surrounded and underlain by granitoid intrusives of the Upper Cretaceous Coast Plutonic Complex.

RELATED A.R.: 10384, 11263, 14303, 14872, 15836

VANCOUVER 092G

Marg-Sum A.R. 17412 REPORT YEAR: 1988, 34 Pages

OPERATOR(S): **Trifaux, R.**
AUTHOR(S): Trifaux, R.
MINING DIV: New Westminster
LOCATION: NTS 092G01E LAT. 49 05 00 LONG. 122 01 00
CLAIM(S): Marg-Sum 1-3
EXPL. TARGET: Gold,Silver,Antimony,Mercury,Bismuth,Copper,Lead,Zinc,Molybdenum/Molybdenite
WORK DONE: PROS 25.0 ha
SAMP 16 sample(s);AU,AG,CU,PB,ZN,SB,HG,MO

GEOLOGY: Most of the claims are covered by overburden. Bedrocks include sedimentary, volcanic, granitic and metamorphic rocks of upper Paleozoic and Mesozoic age.

RELATED A.R.: 11133, 14755

Nami A.R. 17031 REPORT YEAR: 1988, 55 Pages

OPERATOR(S): **Trifaux, R.**
AUTHOR(S): Trifaux, R.
MINING DIV: New Westminster
LOCATION: NTS 092G01E LAT. 49 02 30 LONG. 122 04 00
CLAIM(S): Nami 1,Nami 3,Nami 5,Nami 7
EXPL. TARGET: Lead,Zinc,Nickel,Cobalt,Antimony,Bismuth,Cadmium
WORK DONE: PROS 100.0 ha
ROCK 33 sample(s);ME
SOIL 11 sample(s);ME

GEOLOGY: Upper Paleozoic to Mesozoic sedimentary, volcanic, granite and metamorphic bedrock is covered by overburden. One noritic iron deposit is 9.5 metres long and of unknown width. Another area on the property is anomalous in zinc, lead, antimony, copper and tungsten. Soil contains magnetite. Serpentines in two areas contain copper, lead, cobalt and nickel values.

RELATED A.R.: 11156, 15098

Summit A.R. 17365 REPORT YEAR: 1988, 27 Pages

OPERATOR(S): **Trifaux, R.**
AUTHOR(S): Trifaux, R.
MINING DIV: New Westminster
LOCATION: NTS 092G01E LAT. 49 02 00 LONG. 122 05 00
CLAIM(S): Summit 5-8
EXPL. TARGET: Gold,Silver,Copper,Mercury,Bismuth,Arsenic,Lead,Zinc
WORK DONE: SOIL 16 sample(s);ME

GEOLOGY: The underlying rocks are Jurassic tuffs, breccia, agglomerate,

slate, chlorite schists, greywacke, granite, andesite, conglomerate, quartzite, some limestone and greenstone; also alluvial, marine and glacial deposits, and quartzite with fluorite. Some malachite and azurite were seen in one sample.
RELATED A.R.: 10192, 14318, 14991

Gap A.R. 16862 REPORT YEAR: 1988, 14 Pages

OPERATOR(S): **Mitterer, R.**
AUTHOR(S): Sookochoff, L.
MINING DIV: New Westminster
LOCATION: NTS 092G08W LAT. 49 18 21 LONG. 122 22 42
CLAIM(S): Sun 4
EXPL. TARGET: Gold
WORK DONE: ROCK 6 sample(s);ME
GEOLOGY: The claims are underlain by Upper Cretaceous Coast Plutonic Complex intrusives ranging in composition from granite to migmatite with inclusions of older sedimentary rocks and greenstone. The area has been subjected to faulting, shearing and fracturing. Silicification occurs in areas of fissure-filling quartz veins.
RELATED A.R.: 06325, 15497, 16404

Golden Star A.R. 18145 REPORT YEAR: 1988, 19 Pages, 1 Map(s)

OPERATOR(S): **007 Precious Metals**
AUTHOR(S): Zastavnikovich, S.
MINING DIV: New Westminster
LOCATION: NTS 092G08W LAT. 49 18 00 LONG. 122 23 00
CLAIM(S): Oro 1-4,Golden Star
WORK DONE: ROCK 43 sample(s);ME - 1 Map(s); 1:10 000
SILT 7 sample(s);ME
GEOLOGY: The claims are mainly underlain by Coast Plutonic Complex medium grained quartz-diorites containing 10 per cent mafic minerals, with finer grained hornblende diorite present in more complex areas. The area has been extensively faulted and sheared. Quartz veining and fracture-filled silicification is present on the property.

Coon A.R. 16924 REPORT YEAR: 1987, 25 Pages, 1 Map(s)

OPERATOR(S): **LMX Res.**
AUTHOR(S): Poloni, J.R.
MINING DIV: New Westminster
LOCATION: NTS 092G09E LAT. 49 41 42 LONG. 122 03 36
CLAIM(S): Toil,Ed 1-2,Coon 1-2
EXPL. TARGET: Gold
WORK DONE: LINE 5.1 km
SOIL 36 sample(s);AU,AG,CU - 1 Map(s); 1:2500
GEOLOGY: The property covers, in part, the Fire Lake Group of volcanic and sedimentery rocks. Green andesitic crystal tuffs, lapilli tuff, and breccia have been argillitized, sericitized, and silicified. Pyrite content ranges from 2% to 10%, which is the cause of numerous geophysical anomalies.
RELATED A.R.: 10922, 13600, 14486
MINFILE: 092GNE024

Frontier-Gem A.R. 17943 REPORT YEAR: 1988, 105 Pages, 7 Map(s)

OPERATOR(S): **Adrian Res.**
AUTHOR(S): Dewonck, B. Friz, P.C. Hards, E.K.
MINING DIV: New Westminster
LOCATION: NTS 092G09W LAT. 49 46 00 LONG. 122 17 00
CLAIM(S): Gem 1-3,2 B,02 B,Frontier 1-5
EXPL. TARGET: Gold,Arsenic
WORK DONE: EMGR 21.1 km;VLF - 3 Map(s); 1:5000
MAGG 5.6 km - 1 Map(s); 1:5000
ROCK 169 sample(s);AU,ME - 2 Map(s); 1:1000
SILT 34 sample(s);AU,ME
SOIL 433 sample(s);AU,ME - 1 Map(s); 1:1000
GEOLOGY: Property underlain by Lower Cretaceous Fire Lake Formation metamorphosed volcanics and sediments, which have been intruded by Coast Plutonic Complex intrusions. Anomalous gold values within dacitic tuffs, localized in northwest trending fracture, are associated with finely disseminated pyrite, minor chalcopyrite and pyrrhotite(?). Silicification, sericitization, iron oxidation are associated alterations.
RELATED A.R.: 14845
MINFILE: 092GNE

Gerrard A.R. 17022 REPORT YEAR: 1987, 20 Pages, 1 Map(s)

OPERATOR(S): **Mariah Res.**
AUTHOR(S): Sayer, C.J.
MINING DIV: New Westminster
LOCATION: NTS 092G10W LAT. 49 33 06 LONG. 122 52 57
CLAIM(S): Gerrard
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: PROS 400.0 ha - 1 Map(s); 1:5000
ROCK 15 sample(s);ME
SILT 7 sample(s);ME
GEOLOGY: Small slivers and pendants of Jurassic-Cretaceous volcanics are rafted and faulted into quartz diorite of the Upper Cretaceous Coast Plutonic Complex. Increased pyrite mineralization and epidote-potassium-feldspar alteration are associated with strong fault and shear structures where 50-100 metre zones of sheared rock may be affected.

Britannia A.R. 16756 REPORT YEAR: 1987

OPERATOR(S): **Minnova**
AUTHOR(S): Burge, C.M.
MINING DIV: Vancouver
LOCATION: NTS 092G11E LAT. 49 34 46 LONG. 123 03 29
CLAIM(S): Lots 2128-2129,Lot 2902,Lot 2928,Lot 3588,Lot 3732,Lot 4226,Lot 4403,Lot 4407,Lots 5010-5012
WORK DONE: GEOL 162.0 ha
LINE 16.0 km
ROCK 135 sample(s);ME
GEOLOGY: The property is underlain by Lower Cretaceous metavolcanic and metasedimentary rocks of the Britannia pendant. Extensive chalcopyrite-pyrite-sphalerite stringer systems below copper and zinc-rich dacitic ash beds were discovered in numerous old pits and adits. A second, possibly lower, mineralized cherty ash tuff unit is situated stratigraphically above a silica-flooded andesite.

Maggie A.R. 16739 REPORT YEAR: 1987

OPERATOR(S): **Minnova**
AUTHOR(S): Burge, C.M.

MINING DIV: Vancouver
LOCATION: NTS 092G11E LAT. 49 38 05 LONG. 123 01 44
CLAIM(S): Mar
WORK DONE: DIAD 658.0 m 6 hole(s);NQ
ROAD 0.5 km
SAMP 68 sample(s);ME
GEOLOGY: The project area is part of the Indian River volcano-sedimentary sequence which is comprised of intercalated rhyolite flows, coarse andesitic and dacitic pyroclastic rocks and argillites.
RELATED A.R.: 00626, 02373, 02632, 02665, 06866, 06867, 07021, 07026, 07047, 07671, 08207, 09437, 10293, 1072

Maggie A.R. 17194 REPORT YEAR: 1988, 64 Pages, 2 Map(s)

OPERATOR(S): **Minnova**
AUTHOR(S): Burge, C.M.
MINING DIV: Vancouver
LOCATION: NTS 092G11E LAT. 49 38 05 LONG. 123 01 44
CLAIM(S): Mar
EXPL. TARGET: Copper,Lead,Zinc,Gold
WORK DONE: DIAD 657.5 m 6 hole(s);NQ - 2 Map(s); 1:5000,1:1000
ROAD 0.5 km
SAMP 68 sample(s);ME
GEOLOGY: The property is underlain by Lower Cretaceous metavolcanic/sedimentary rocks of the Britannia pendant, one of many volcano-sedimentary belts within the Upper Cretaceous Coast Plutonic Complex. The Slumach gold bearing quartz-sulphide veins are narrow, steeply dipping and fault controlled. The host is an andesite unit extensively altered to biotite-cordierite hornfels.
RELATED A.R.: 12839, 16739
MINFILE: 092GNW

Egmont A.R. 17941 REPORT YEAR: 1988, 42 Pages, 6 Map(s)

OPERATOR(S): **Blue Chip Res.**
AUTHOR(S): Howell, W.
MINING DIV: Vancouver
LOCATION: NTS 092G12W, 092G13W LAT. 49 45 00 LONG. 123 58 00
CLAIM(S): Chalice I,Stein,Wally I-II
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: GEOL 0.3 ha - 2 Map(s); 1:100
IPOL 7.7 km - 2 Map(s); 1:2500
ROCK 33 sample(s);CU,PB,ZN,AG,AS,AU
SOIL 271 sample(s);CU,PB,ZN,AG,AS,AU - 2 Map(s); 1:2500
GEOLOGY: The property is underlain by mainly Cretaceous diorite to quartz-diorite intrusive rocks and Upper Jurassic volcanics believed to be Karmutsen Formation or equivalent. Rocks are cut by individual dykes and swarms of dykes of intermediate to basic composition in a wide variety of attitude. Gold is associated with several narrow (2 to 75 centimetre wide) quartz-pyrite/marcasite veins which are primarily east to northeast trending and steeply dipping.
RELATED A.R.: 11129, 12641, 14736
MINFILE: 092GNW050

Bimbo A.R. 17888 REPORT YEAR: 1988, 17 Pages

OPERATOR(S): **Valentine Gold**
AUTHOR(S): Mazacek, P.
MINING DIV: Vancouver
LOCATION: NTS 092G14W LAT. 49 56 31 LONG. 123 27 11
CLAIM(S): Bimbo,Gee-Whiz
EXPL. TARGET: Gold
WORK DONE: GEOL 5.0 ha
ROCK 16 sample(s);ME
GEOLOGY: The claims are underlain by Cretaceous intrusions and volcanic roof pendants.
RELATED A.R.: 16486

Elephant A.R. 17937 REPORT YEAR: 1988, 16 Pages

OPERATOR(S): **Mazacek, P.**
AUTHOR(S): Mazacek, P.
MINING DIV: Vancouver
LOCATION: NTS 092G14W LAT. 49 56 45 LONG. 123 24 45
CLAIM(S): Elephant
EXPL. TARGET: Gold
WORK DONE: GEOL 300.0 ha
GEOLOGY: The property is underlain by Cretaceous intrusives and quartz veins.

Hawk A.R. 17889 REPORT YEAR: 1988, 128 Pages, 6 Map(s)

OPERATOR(S): **Valentine Gold**
AUTHOR(S): Mazacek, P.
MINING DIV: Vancouver
LOCATION: NTS 092G14W LAT. 49 56 42 LONG. 123 24 41
CLAIM(S): Hawk 1-2,Hawk 4-6,Hawk 8
EXPL. TARGET: Gold
WORK DONE: GEOL 2300.0 ha - 4 Map(s); 1:5000,1:1200,1:200
PERD 65.2 m 9 hole(s)
PETR 6 sample(s)
ROCK 359 sample(s);ME - 2 Map(s); 1:200
GEOLOGY: The claims are underlain by Cretaceous intrusives and volcanic roof pendants.
RELATED A.R.: 05592, 06043, 07403, 08084, 14703, 17889
MINFILE: 092GNW013, 092GNW045

Phantom A.R. 17676 REPORT YEAR: 1988, 44 Pages

OPERATOR(S): **Clowhom Min. & Ex.**
AUTHOR(S): O'Neill, D.M.
MINING DIV: Vancouver
LOCATION: NTS 092G14W LAT. 49 52 08 LONG. 123 29 32
CLAIM(S): Phantom 2
EXPL. TARGET: Gold
WORK DONE: DIAD 338.3 m 2 hole(s);NQ
PETR 4 sample(s)
GEOLOGY: The property is underlain by quartz diorite of the Upper Cretaceous Coast Plutonic Complex and by metasedimentary and metavolcanic rocks. Petrographic analysis identified spotted andalusite-biotite hornfels, pyrrhotite-biotite hornfels and hornfelsed amygdaloidal andesite. Mineralization consists of minor pyrite, pyrrhotite and chalcopyrite. Small amounts of rare-earth bearing phosphate of Upper Jurassic-Early Cretaceous age is evident from SEM analysis.
RELATED A.R.: 11171, 16131

Fire Creek A.R. 17508 REPORT YEAR: 1988, 148 Pages, 1 Map(s)

OPERATOR(S): **Englefield Res.**
AUTHOR(S): Bennett, D.R. Christie, J.S.
MINING DIV: New Westminster
LOCATION: NTS 092G16E LAT. 49 47 16 LONG. 122 14 45
CLAIM(S): Hades
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: DIAD 850.0 m 9 hole(s);NDB - 1 Map(s); 1:1000
GEOLOGY: Exploration to date has been focused on a steeply dipping mineralized zone some 1000 by 350 metres in size developed in Cretaceous-Jurassic Fire Lake Group tuffs and sediments. High gold, silver and base metal values have been obtained from samples from several areas within the sulphide zone and one of these areas was tested by the current drilling.
RELATED A.R.: 09783, 12217, 14663
MINFILE: 092GNE

Easy A.R. 17855 REPORT YEAR: 1988, 86 Pages, 7 Map(s)

OPERATOR(S): **Symes Res.**
AUTHOR(S): Peters, L.J. Sowerbutts, E.H.
MINING DIV: New Westminster
LOCATION: NTS 092G16W LAT. 49 56 25 LONG. 122 25 39
CLAIM(S): Easy 1
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: EMGR 10.0 km;VLF - 1 Map(s); 1:2500
LINE 10.0 km
SOIL 596 sample(s);ME - 6 Map(s); 1:2500
GEOLOGY: The claim is underlain by a northwest trending sequence of volcanic and sedimentary rocks of Upper Jurassic through Lower Cretaceous age mapped as the Fire Lake Group. Argentiferous galena and sphalerite occur disseminated, as breccia fillings and in later stringers and boxworks within some of the stratigraphic units - principally rhyolitic tuffs. Strong gold geochemical values occur spatially associated with an intermediate to rhyolitic tuff near its contact with a black argillite unit.
RELATED A.R.: 11436, 15255, 16789

Easy A.R. 16789 REPORT YEAR: 1987, 14 Pages, 1 Map(s)

OPERATOR(S): **Hillside Energy**
AUTHOR(S): Sadlier-Brown, T.
MINING DIV: New Westminster
LOCATION: NTS 092G16W LAT. 49 56 36 LONG. 122 26 00
CLAIM(S): Easy 1
EXPL. TARGET: Silver,Lead,Zinc
WORK DONE: EMGR 1.5 km;VLF - 1 Map(s); 1:1000
GEOLOGY: The claim is underlain by Cretaceous-Jurassic sedimentary and volcanic rocks of the Fire Lake Group. These are cut by a zone of brecciation and locally mineralized by argentiferous galena, pyrite and minor sphalerite occurring as disseminations, stringers, breccia fillings, fragments and possibly massive bodies.

Quet A.R. 17373 REPORT YEAR: 1987, 67 Pages, 7 Map(s)

OPERATOR(S): **New Global Res.**
AUTHOR(S): McLaren, M.
MINING DIV: New Westminster
LOCATION: NTS 092G16W LAT. 49 45 32 LONG. 122 21 19
CLAIM(S): Quet 2-4
EXPL. TARGET: Gold,Silver
WORK DONE: ROCK 36 sample(s);ME - 1 Map(s); 1:10 000
SILT 114 sample(s);ME
SOIL 152 sample(s);ME - 6 Map(s); 1:10 000
GEOLOGY: The area is underlain by a mixed assemblage of felsic tuffaceous and fragmental rocks of the Cretaceous-Jurassic Fire Lake Group. These rocks show evidence of explosive felsic volcanism including clasts of laminated pyrite and are interfingered with andesite flows and capped by laminated rhyolitic cherty tuffite and argillaceous rocks. Dioritic intrusives cut the above units on the northern and southern boundaries of the claim. Pyrite mineralization occurs mainly in a felsic tuff unit.
MINFILE: 092GNE027

TY A.R. 17596 REPORT YEAR: 1987, 31 Pages

OPERATOR(S): **Tylor, B.F.**
AUTHOR(S): Tylor, B.F.
MINING DIV: New Westminster
LOCATION: NTS 092G16W LAT. 49 52 30 LONG. 122 27 00
CLAIM(S): TY 1-2
EXPL. TARGET: Gold,Copper,Silver,Zinc
WORK DONE: PROS 500.0 ha
GEOLOGY: The property is underlain by volcanic and sedimentary rocks in the east and by granitoid rocks of the Coast Range Complex in the west.

HOPE 092H

Paul Creek A.R. 17749 REPORT YEAR: 1988, 76 Pages, 3 Map(s)

OPERATOR(S): **Banbury Gold Min.**
AUTHOR(S): Sanford, M.R.
MINING DIV: Osoyoos
LOCATION: NTS 092H01E LAT. 49 13 00 LONG. 120 11 00
CLAIM(S): Hally,Clare,Lori,Kim
EXPL. TARGET: Gold
WORK DONE: EMGR 192.0 km;VLF - 1 Map(s); 1:5000
LINE 192.0 km
MAGG 192.0 km - 1 Map(s); 1:5000
SOIL 82 sample(s);AU - 1 Map(s); 1:5000
GEOLOGY: The area is underlain by the Hedley Formation, Copperfield conglomerate and Whistle Creek sequence of the Triassic Nicola Group. A more detailed geological survey is required to help explain geophysical and geochemical anomalies.

Skarn A.R. 17571 REPORT YEAR: 1988, 30 Pages, 1 Map(s)

OPERATOR(S): **Hawk Res.**
AUTHOR(S): Cruickshank, P.
MINING DIV: Similkameen
LOCATION: NTS 092H01W, 092H08W LAT. 49 15 19 LONG. 120 16 50
CLAIM(S): Skarn 4,Rodgers 1

EXPL. TARGET: Gold
WORK DONE: ROCK 4 sample(s);AU
SOIL 353 sample(s);AU - 1 Map(s); 1:4000
GEOLOGY: The property is underlain by Upper Triassic Nicola Group volcanics and sediments with an intrusion of Upper Cretaceous Coast Plutonic Complex granites along the west boundary. Plugs and dykes of gabbro occur throughout the Nicola Group rocks. Bands of metamorphosed limestone, calcareous argillites and argillites associated with mafic intrusives are mineralized with gold-bearing arsenopyrite in the Hedley-Mascot Gold Mine and Nickel Plate Mine.
RELATED A.R.: 14976, 15907

Pierce Mountain A.R. 17621 REPORT YEAR: 1988, 53 Pages, 2 Map(s)

OPERATOR(S): **Pierce Mountain Res.**
AUTHOR(S): George, J.W. Christopher, P.A.
MINING DIV: New Westminster
LOCATION: NTS 092H04E LAT. 49 03 41 LONG. 121 36 36
CLAIM(S): Chuck 1-5,PL 1-2,Mint 1,Chuck Fr.
EXPL. TARGET: Gold
WORK DONE: EMGR 13.0 km;VLF - 2 Map(s); 1:2500
LINE 15.0 km
MAGG 13.0 km
ROCK 7 sample(s);ME
SILT 76 sample(s);AU
SOIL 548 sample(s);CU,AS,AU
GEOLOGY: The claims are underlain by an imbricated sequence of metamorphosed Precambrian to Mesozoic sedimentary and volcanic rocks that have been intruded by ultramafic rocks and granitic rocks of the Tertiary Chilliwack Batholith. Mineralization on the property consists of a northeast trending vein zone.
RELATED A.R.: 16183
MINFILE: 092HSW063

Rico A.R. 17587 REPORT YEAR: 1988, 29 Pages, 1 Map(s)

OPERATOR(S): **McMellen Res.**
AUTHOR(S): Mark, D.G. Cruickshank, P.
MINING DIV: New Westminster
LOCATION: NTS 092H04E LAT. 49 10 00 LONG. 121 33 00
CLAIM(S): Rico 1-6,White,PI Fr.,Phee Fr.,Lucky Four 1-6,Epsilon Fr.,Gammas Fr.,Delta Fr.,Sperry
EXPL. TARGET: Copper,Gold,Silver
WORK DONE: EMAB 299.4 km;VLF
MAGA 299.4 km - 1 Map(s); 1:10 000
GEOLOGY: The property encloses the boundary between Upper Cretaceous Chilliwack Group sediments and metasediments and Jurassic granitic and dioritic intrusives. Copper mineralization is known to exist within a garnetite skarn, with some gold and silver as well. The sulphides are known to be weakly to strongly magnetized.
MINFILE: 092HSW007

Roy A.R. 16927 REPORT YEAR: 1988, 31 Pages, 1 Map(s)

OPERATOR(S): **Sauer, B.R.**
AUTHOR(S): Sauer, B.R.
MINING DIV: New Westminster
LOCATION: NTS 092H04E LAT. 49 00 30 LONG. 121 37 00
CLAIM(S): Roy 1-2,Roy 5-6
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 200.0 ha - 1 Map(s); 1:10 000
SAMP 17 sample(s);CU,MO,PB,ZN,AS,SB,AU,AG
GEOLOGY: Mafic volcanics and pelites of the Lower Pennsylvanian to Lower Permian Chilliwack Group are imbricated with a group of metamorphic rocks of varying textures and compositions in a north-east trending belt. The Paleozoic rocks to the east are intruded by granodiorites to quartz diorites of the Mid-Tertiary Chilliwack Pluton.
MINFILE: 092HSW032, 092HSW053, 092HSW064

Lilbrat A.R. 16640 REPORT YEAR: 1987, 14 Pages, 1 Map(s)

OPERATOR(S): **Savege, J.**
AUTHOR(S): Savege, J.
MINING DIV: New Westminster
LOCATION: NTS 092H04W LAT. 49 04 20 LONG. 121 51 30
CLAIM(S): Lilbrat 20
EXPL. TARGET: Gold,Silver,Platinum
WORK DONE: PROS 60.0 ha - 1 Map(s); 1:13200
GEOLOGY: The claim appears to be underlain by Permian-Pennsylvanian rocks of the Chilliwack Group. Panned sediment samples and microscopic inspection of bedrock grab samples contain visible gold.

Agassiz-Weaver A.R. 17496 REPORT YEAR: 1988, 96 Pages, 1 Map(s)

OPERATOR(S): **Int. Curator Res.**
AUTHOR(S): Garratt, G.L.
MINING DIV: New Westminster
LOCATION: NTS 092H05W LAT. 49 19 00 LONG. 121 56 00
CLAIM(S): Dorothy 1-4
EXPL. TARGET: Zinc,Copper,Lead,Gold,Silver
WORK DONE: DIAD 3041.9 m 12 hole(s);NQ - 1 Map(s); 1:5000
PETR 14 sample(s)
SAMP 21 sample(s);ME
GEOLOGY: The Seneca is a Kuroko type massive sulphide deposit which occurs in intermediate to felsic pyroclastic rocks of the Harrison Lake Formation, believed to be of mid-Jurassic age. The units dip 15-20 degrees southeast and are disrupted by northeast, northwest, north and west trending faults and associated dykes. Strong argillic to chloritic alteration is associated with the ore sequence. The Seneca is estimated to exceed one million tonnes. A fracture-controlled vein type zinc, copper, gold and silver-bearing zone occurs 1.5 kilometres northwest of the Seneca deposit. This zone trends northeast, measuring at least 100 metres by 250 metres.
RELATED A.R.: 07053, 07632, 09844, 10894, 12322
MINFILE: 092HSW013, 092HSW139

Brett Creek A.R. 17350 REPORT YEAR: 1988, 67 Pages, 2 Map(s)

OPERATOR(S): **Richland Mines**
AUTHOR(S): Richards, G.G.
MINING DIV: New Westminster
LOCATION: NTS 092H05W LAT. 49 23 10 LONG. 121 52 17
CLAIM(S): Cloud 1-3,Cloud 6-7,Cloud 1 Fr.
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold
WORK DONE: ROCK 123 sample(s);ME
SOIL 660 sample(s);ME - 2 Map(s); 1:5000
GEOLOGY: Upper Jurassic volcanic and sedimentary rocks of the Harrison Lake Formation are cut by a complex fault zone which trends north-

northeast across the property and is associated with intense silica-pyrite alteration and local zinc-copper-lead-barite stringer veins. An area east of this structure has coincident "footwall breccia", "footwall alteration" anomalous zinc soil geochemistry with local copper-lead highs and interbedded felsic volcanic rocks and argillite-chert sediments.
RELATED A.R.: 09483, 10022, 11004, 13818, 15889
MINFILE: 092HSW096, 092HSW133

Jogo A.R. 17221 REPORT YEAR: 1987, 42 Pages, 3 Map(s)

OPERATOR(S): **Owen Ventures**
AUTHOR(S): Arnold, R.R.
MINING DIV: New Westminster
LOCATION: NTS 092H05W LAT. 49 19 36 LONG. 121 49 48
CLAIM(S): Jogo 1
EXPL. TARGET: Gold
WORK DONE: GEOL 500.0 ha - 1 Map(s); 1:10 000
ROCK 25 sample(s);AU,AG,AS,CU,PB,SB,ZN - 2 Map(s); 1:10 000
GEOLOGY: The property is underlain by rocks of the Upper Jurassic Harrison Lake Formation and to a lesser extent by rocks of the Triassic Camp Cove Formation. Rocks of these two formations consist mainly of andesite, rhyolite, mudstone-shale and conglomerate.
RELATED A.R.: 14173, 15689

Valley View A.R. 17318 REPORT YEAR: 1988, 148 Pages, 8 Map(s)

OPERATOR(S): **Gila Bend Res.**
AUTHOR(S): Blank, M.E.
MINING DIV: New Westminster
LOCATION: NTS 092H05W LAT. 49 15 35 LONG. 121 51 09
CLAIM(S): Valley View I-II,Gold Top 1-3
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold
WORK DONE: EMGR 18.0 km;VLF - 1 Map(s); 1:2500
GEOL 700.0 ha - 2 Map(s); 1:5000,1:2500
LINE 18.0 km
MAGG 18.0 km - 2 Map(s); 1:2500
ROAD 4.0 km
ROCK 100 sample(s);CU,PB,ZN,AG,FE,AU - 1 Map(s); 1:2500
SOIL 495 sample(s);CU,PB,ZN,AG,FE,AU - 2 Map(s); 1:5000,1:2500
GEOLOGY: The property is underlain by metavolcanics of the Upper Jurassic Harrison Lake Formation. Two altered mineralized zones are known: the Valley View zone containing copper, zinc and silver values with trace gold and the Stacey Creek zone, a severely brecciated (barite rich) zone containing lead, copper, zinc, lead, silver and trace gold.
RELATED A.R.: 12222, 13479
MINFILE: 092HSW015

Argentum A.R. 17117 REPORT YEAR: 1987, 19 Pages

OPERATOR(S): **Silver Saddle Mines**
AUTHOR(S): Jones, H.M.
MINING DIV: New Westminster
LOCATION: NTS 092H06E LAT. 49 25 30 LONG. 121 06 30
CLAIM(S): Argentum
EXPL. TARGET: Silver,Lead,Zinc
WORK DONE: GEOL 500.0 ha
GEOLOGY: Rocks of the Upper Jurassic Dewdney Creek Group underlie the entire property. This group consists mainly of interbedded volcanic sandstone, volcanic conglomerate, volcanic breccia (agglomerate) and lesser tuffs and tuffaceous argillite. Attitudes range from north 30-40 degrees west, dip 50-60 degrees east, to north 10-20 degrees west, dip 60 degrees west, indicating a synclinal fold at the western edge of the claim. A number of diorite sills and dykes are present within the sedimentary package.
RELATED A.R.: 14714

Master Ace A.R. 16730 REPORT YEAR: 1987

OPERATOR(S): **Newjay Res.**
AUTHOR(S): Cardinal, D.G.
MINING DIV: New Westminster
LOCATION: NTS 092H06E LAT. 49 17 12 LONG. 121 08 00
CLAIM(S): Master Ace I
WORK DONE: DIAD 277.9 m 7 hole(s);BQ
SAMP 45 sample(s);CU,AG,AU,PT
GEOLOGY: Drilling intersected a thick sequence of highly sheared cherty-graphitic argillites intercalated with minor chert. The argillites are in fault contact with a strongly altered talcose shear zone which passes into a more massive, dark grey-green serpentinite. The talcose schist commonly hosts disseminated pyrite, pyrrhotite with lesser chalcopyrite and arsenopyrite. In places the zone is silicified with associated secondary quartz veinlets.
RELATED A.R.: 15086, 16342

Punch A.R. 17824 REPORT YEAR: 1988, 31 Pages, 3 Map(s)

OPERATOR(S): **Goldsmith, L.B.**
AUTHOR(S): Kallock, P.
MINING DIV: Similkameen
LOCATION: NTS 092H06E, 092H07W LAT. 49 16 00 LONG. 121 00 00
CLAIM(S): Punch West,Punch East,KCM West,KCM East
EXPL. TARGET: Gold,Silver,Copper,Arsenic
WORK DONE: GEOL 1500.0 ha - 1 Map(s); 1:2500
LINE 19.0 km
ROCK 15 sample(s);AU,AS
SOIL 313 sample(s);AU,AS - 2 Map(s); 1:2500
TREN 8.8 m 6 trench(es)
GEOLOGY: The property is underlain by clastic sedimentary rocks of the Upper Jurassic(?) Dewdney Creek Group, younger granitic intrusives and by Tertiary(?) intermediate volcanics. The sedimentary rocks generally trend northwest with moderate southwest dips. Arsenopyrite veins are localized in east trending fault zones and a northwest trending quartz-carbonate vein which is 25 metres wide and carries up to 285 ppb gold.

Southern 8 A.R. 18111 REPORT YEAR: 1988, 133 Pages, 4 Map(s)

OPERATOR(S): **Harrisburg-Dayton Res.**
AUTHOR(S): Chung, P.L.
MINING DIV: Similkameen
LOCATION: NTS 092H06E LAT. 49 25 00 LONG. 121 05 00
CLAIM(S): Southern 8 Fr.,Spike,Sutter,Luis,Amberty,Skyline,Sky
EXPL. TARGET: Copper,Lead,Zinc,Silver,Antimony,Cadmium,Gold
WORK DONE: EMGR 28.2 km;VLF - 4 Map(s); 1:10 000

LINE 31.1 km
PETR 6 sample(s)
ROAD 1.3 km
ROCK 200 sample(s);ME
SOIL 966 sample(s);ME
TREN 390.0 m 2 trench(es)

GEOLOGY: The property is underlain by a sequence of northwest trending conglomerate, sandstone, and argillite of the Upper Jurassic Dewdney Creek Group. These units have been intruded by Late Cretaceous to Early Tertiary dykes and intrusives. Crosscutting quartz-carbonate veins are mineralized with chalcopyrite, argentiferous galena, sphalerite, and ruby silver. The veins have preferred orientations of 50 or 80 degrees and generally have epidote and sericite in the matrix and as alteration selvages.

RELATED A.R.: 09514, 11455
MINFILE: 092HSW019, 092HSW021, 092HSW022, 092HSW023

Val A.R. 17865 REPORT YEAR: 1988, 25 Pages, 4 Map(s)

OPERATOR(S): **Mowry, B.R.**
AUTHOR(S): Bysouth, G.D.
MINING DIV: Similkameen
LOCATION: NTS 092H06E LAT. 49 29 15 LONG. 121 01 30
CLAIM(S): Val 5-6
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 8.3 km;VLF - 4 Map(s); 1:5000

GEOLOGY: Within the Val Group, Cretaceous diorites have been intruded by felsic dykes and have undergone extensive propylitic alteration along broad northwest trending shear zones, subsidiary to the Pasayten Fault Zone. Auriferous quartz-ankerite-pyrite vein systems occur within the zones of shearing and alteration. These have been the focus of exploration since the early 1900's.

RELATED A.R.: 10685, 13829
MINFILE: 092HSW048, 092HSW049

Venus Silver A.R. 17020 REPORT YEAR: 1988, 41 Pages, 1 Map(s)

OPERATOR(S): **Laird, J.**
AUTHOR(S): Laird, J.
MINING DIV: Similkameen
LOCATION: NTS 092H06E LAT. 49 26 30 LONG. 121 05 00
CLAIM(S): Venus Silver
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: PROS 180.0 ha - 1 Map(s); 1:5000
ROCK 10 sample(s);ME

GEOLOGY: A large pyritic halo and ferricrete gossan occurs in Jurassic Dewdney Creek Group metasedimentary rocks near a Tertiary quartz diorite intrusive. Widespread pyrite, pyrrhotite, magnetite, marcasite, and minor sphalerite occur in the alteration zone.

MINFILE: 092H

Coquihalla North A.R. 17433 REPORT YEAR: 1988, 7 Pages

OPERATOR(S): **Border Res.**
AUTHOR(S): Hall, P. Hackl, R.P.
MINING DIV: New Westminster
LOCATION: NTS 092H06W LAT. 49 29 00 LONG. 121 16 00
CLAIM(S): Tax 51-56,N 27
EXPL. TARGET: Nickel
WORK DONE: META 1 sample(s);NI

GEOLOGY: The Coquihalla serpentine belt trends south to north along a line some 20 kilometres east of Hope, B.C. The serpentine belt is up to several kilometres wide. It comes closest to the surface on the company's two blocks of claims where it outcrops along ravines and in cliff faces. A shallow dunite cap usually overlies the serpentine proper. Nickel mineralization is widely dispersed as microscopic needles throughout the serpentine.

MINFILE: 092HSW135

Margie A.R. 17196 REPORT YEAR: 1988, 17 Pages

OPERATOR(S): **Manny Consul.**
AUTHOR(S): Mark, D.G.
MINING DIV: New Westminster
LOCATION: NTS 092H06W LAT. 49 24 20 LONG. 121 25 58
CLAIM(S): Margie
EXPL. TARGET: Copper,Lead,Gold
WORK DONE: MAGG 1.6 km

GEOLOGY: The property is mainly underlain by volcanics and sediments of Carboniferous and later age. A narrow band of Jackass Mountain Group sediments occur along the western border. Felsic intrusives of Jurassic age intrude the sediments and volcanics. The mineralization occurs on the east side of the property and consists of quartz veins containing pyrite, chalcopyrite, pyrrhotite and sparse galena, as well as possible gold.

MINFILE: 092HSW006

Sunray A.R. 17106 REPORT YEAR: 1988, 20 Pages

OPERATOR(S): **Nicholson, H.**
AUTHOR(S): Nicholson, H.
MINING DIV: New Westminster
LOCATION: NTS 092H06W LAT. 49 29 30 LONG. 121 16 00
CLAIM(S): Sunshine
EXPL. TARGET: Gold
WORK DONE: EMGR 2.2 km; VLF
SOIL 158 sample(s);AU

GEOLOGY: Over 3/4 of the property is underlain by the Coquihalla serpentine belt made up of gabbro, micro-gabbro and serpentinite of uncertain age, which are in the Hozameen fault contact with the Spider Peak Formation massive greenstones and breccia believed to be of Lower Triassic age, and the Ladner Group conglomerate, wacke siltstone and argillite of Lower to Upper Jurassic age. Present work did not determine mineralization or exploration targets.

Goldrop A.R. 17619 REPORT YEAR: 1988, 43 Pages

OPERATOR(S): **Shewchuk, M.**
AUTHOR(S): Crooker, G.F.
MINING DIV: Similkameen
LOCATION: NTS 092H07E LAT. 49 20 06 LONG. 120 37 40
CLAIM(S): Goldrop 2,Goldrop 4
EXPL. TARGET: Gold,Silver,Copper,Zinc
WORK DONE: DIAD 272.3 m 2 hole(s);BQ
SAMP 52 sample(s);ME

GEOLOGY: The property is underlain by volcanic rocks of the Upper Triassic Nicola Group. Mineralization consists of calcite veinlets with minor

silicification containing pyrite and sphalerite with lesser chalcopyrite. Gold values of up to 5560 ppb over 0.5 metres were obtained with zinc values up to 9 per cent.
RELATED A.R.: 05959
MINFILE: 092HSE124

Similkameen A.R. 17462 REPORT YEAR: 1988, 23 Pages, 40 Map(s)

OPERATOR(S): **Newmont Ex. of Can.**
AUTHOR(S): Limion, H.
MINING DIV: Similkameen
LOCATION: NTS 092H07E, 092H08W LAT. 49 20 00 LONG. 120 29 00
CLAIM(S): Queen E Fr.,Queen G Fr.,Queen H Fr.,Queen J Fr.,Alpine Fr.,Alpine 1
EXPL. TARGET: Copper,Gold
WORK DONE: IPOL 28.1 km - 32 Map(s); 1:60.9,1:2400
MAGG 75.0 km - 8 Map(s); 1:2400
GEOLOGY: The Voigt Stock, one of the Copper Mountain Intrusions of Late Triassic age, hosts a copper/gold deposit 800 metres long, and 2 to 30 metres wide. This vertical deposit is cut by post-mineral felsite dykes that divide it into a number of lenses. The mineralization consists of chalcopyrite and pyrite with appreciable specular hematite and minor magnetite. Host structure is a breccia and vein-stockwork. Alteration consists of potassium-feldspar epidote and calcite.
RELATED A.R.: 01985, 01987
MINFILE: 092HSE017, 092HSE018, 092HSE020, 092HSE021

Similkameen A.R. 16745 REPORT YEAR: 1987

OPERATOR(S): **Newmont Ex. of Can.**
AUTHOR(S): Boyle, H. Limion, H.
MINING DIV: Similkameen
LOCATION: NTS 092H07E, 092H08W LAT. 49 20 42 LONG. 120 30 35
CLAIM(S): No. 15,Sunlight,Queen A Fr.,St. Elmo,June Bug,No. 32,No. 18 Fr.,Frieda,Automatic Fr.,New Wolf Fr.,Robert Bryant,Queen D-E Fr.,Queen J Fr.,Alpine Fr.,Alabama
WORK DONE: DIAD 2592.0 m 19 hole(s);NQ
GEOL 125.0 ha
IPOL 28.1 km
LINE 75.0 km
MAGG 75.0 km
ROCK 1157 sample(s);CU,AU
SAMP 604 sample(s);CU,AU
SOIL 1729 sample(s);CU,AU
TREN 3155.0 m 51 trench(es)
GEOLOGY: The Voigt stock, one of the Copper Mountain Intrusions of Late Triassic age, hosts a copper-gold deposit 800 metres long and 2-30 metres wide. This vertical deposit is cut by post-mineral felsite dykes that divide it into a number of lenses. The mineralization is chalcopyrite-pyrite with appreciable specular hematite and minor magnetite. The host structure is a breccia and vein-stockwork. Alteration, consists of potassium feldspar, epidote and calcite.

Stik (Bromley) A.R. 17195 REPORT YEAR: 1988, 30 Pages, 3 Map(s)

OPERATOR(S): **Kettle River Res. Silver Bar Res.**
AUTHOR(S): Wood, D.V.
MINING DIV: Similkameen
LOCATION: NTS 092H07E LAT. 49 24 54 LONG. 120 35 01
CLAIM(S): Stik 1-4,Stik 8-17,Bromley 1-2,Bishop,Whip
EXPL. TARGET: Copper,Gold,Silver,Platinum
WORK DONE: EMAB 425.0 km;VLF - 2 Map(s); 1:20 000
MAGA 425.0 km - 1 Map(s); 1:20 000
GEOLOGY: The property is underlain by the Tertiary age Princeton Basin, a terrigenous sediment-filled homoclinal graben. The western margin of the basin follows the western boundary of the property except for the Bromley 1-2 claims which extend to the west and are underlain by volcanics of the Tertiary Princeton Group and the Upper Triassic Nicola Group.
MINFILE: 092HSE160, 092HSE163, 092HSE165, 092HSE166

Whipsaw A.R. 18069 REPORT YEAR: 1988, 86 Pages, 5 Map(s)

OPERATOR(S): **World Wide Min.**
AUTHOR(S): Richardson, P.W.
MINING DIV: Similkameen
LOCATION: NTS 092H07E, 092H07W LAT. 49 16 00 LONG. 120 45 00
CLAIM(S): Met 2-4,Met 8-10,Met 12
EXPL. TARGET: Gold,Silver,Copper,Zinc
WORK DONE: SOIL 1873 sample(s);ME - 5 Map(s); 1:5000
GEOLOGY: The property covers 10 kilometres of contact between the Upper Triassic Nicola Group rocks and the Eagle granodiorite. The Nicola rocks are largely volcanics with some sediments and are all somewhat metamorphosed. The contact is intruded by the Whipsaw feldspar porphyry, with which is associated gold, silver, copper and zinc mineralization.
RELATED A.R.: 17923
MINFILE: 092HSE072, 092HSE073, 092HSE074, 092HSE081, 092HSE097, 092HSE098, 092HSE102, 092HSE120, 092HSE128, 092HSE129

Whipsaw A.R. 17923 REPORT YEAR: 1988, 117 Pages, 3 Map(s)

OPERATOR(S): **World Wide Min.**
AUTHOR(S): Richardson, P.W.
MINING DIV: Similkameen
LOCATION: NTS 092H07E LAT. 49 16 00 LONG. 120 45 00
CLAIM(S): Mike,OK 1,Mineral Lease 30
EXPL. TARGET: Gold,Silver,Copper,Zinc
WORK DONE: DIAD 3049.1 m 30 hole(s);BQ - 3 Map(s); 1:500,1:5000
GEOLOGY: The property covers 10 kilometres of the contact between the Upper Triassic Nicola Group and the Eagle granodiorite. The Nicola rocks are largely volcanics with some sediments and are all somewhat metamorphosed. The contact is intruded by feldspar porphyry with which is associated gold, silver, copper and zinc mineralization.
RELATED A.R.: 14048
MINFILE: 092HSE073, 092HSE074, 092HSE097, 092HSE098, 092HSE102, 092HSE120, 092HSE128

DMW A.R. 17567 REPORT YEAR: 1988, 67 Pages, 12 Map(s)

OPERATOR(S): **Verdstone Gold**
AUTHOR(S): Windsor, D.M. Blanchflower, J.D.
MINING DIV: Similkameen
LOCATION: NTS 092H07W LAT. 49 27 00 LONG. 120 51 00
CLAIM(S): DMW,JD 1-8
WORK DONE: EMGR 17.5 km;VLF - 4 Map(s); 1:5000
LINE 20.1 km
MAGG 20.1 km - 1 Map(s); 1:5000
SOIL 439 sample(s);AG,CR,NI,CU,AU,PD,PT - 7 Map(s); 1:5000

GEOLOGY: The property is located within the Tulameen Ultramafic Complex, situated along the eastern margin of the Coast and Cascade geologic belt. This complex considered to be Late Triassic in age, covers an area of approximately 60 square kilometres (Findlay, 1969). It intrudes metavolcanic and metasedimentary rocks of the Late Triassic Nicola Group, and is unconformably overlain along the eastern margin by the Tertiary Princeton Group of terrestrial coal-bearing sedimentary and volcanic rocks (Rice 1960). The Eagle granodiorite, part of the Coast Range Intrusions, lies to the west.

Lode A.R. 17819 REPORT YEAR: 1988, 93 Pages

OPERATOR(S): **Inter Can. Dev.**
AUTHOR(S): Brownlee, D.J. Allen, D.G.
MINING DIV: Similkameen
LOCATION: NTS 092H07W LAT. 49 28 00 LONG. 120 52 00
CLAIM(S): Lode I-IV
EXPL. TARGET: Gold,Platinum,Palladium,Copper,Chromium/Chromite,Nickel
WORK DONE: EMGR 19.5 km;VLF
LINE 22.0 km
MAGG 22.0 km
SOIL 412 sample(s);ME

GEOLOGY: The Lode claims cover part of the Tulameen ultramafic-gabbroic complex and Nicola Group volcanic rocks. These rocks are potential hosts to gold, platinum, copper, nickel, chromium, iron and diamond deposits. Four areas on the property have been identified as possible targets.

Tulameen A.R. 17795 REPORT YEAR: 1988, 24 Pages, 3 Map(s)

OPERATOR(S): **GWR Res.**
AUTHOR(S): Leishman, D.A.
MINING DIV: Similkameen
LOCATION: NTS 092H07W LAT. 49 26 30 LONG. 120 51 00
CLAIM(S): GWR 1-3
EXPL. TARGET: Platinum,Palladium,Gold,Silver,Copper
WORK DONE: EMGR 26.0 km;VLF - 2 Map(s); 1:5000
LINE 38.0 km
MAGG 26.0 km - 1 Map(s); 1:5000

GEOLOGY: This property straddles northwest contacts between the Tulameen Ultramafic Complex, Nicola volcanics and younger Eagle Granodiorite. Geophysical conductors both electromagnetic and magnetic have been outlined in all lithologies, some of which may be related to bedrock mineralization. Further work is necessary to fully evaluate the mineral potential of this claim block.

White Gold-Red Gold A.R. 17324 REPORT YEAR: 1988, 73 Pages, 1 Map(s)

OPERATOR(S): **West Coast Platinum**
AUTHOR(S): Zastavnikovich, S.
MINING DIV: Similkameen
LOCATION: NTS 092H07W, 092H10W LAT. 49 30 33 LONG. 120 55 34
CLAIM(S): White Gold,Red Gold
WORK DONE: HMIN 48 sample(s);ME
ROCK 266 sample(s);ME
SILT 32 sample(s);ME
SOIL 343 sample(s);ME - 1 Map(s); 1:11 400

GEOLOGY: The property is underlain mainly by the Jurassic-Cretaceous Eagle granodiorite in contact with Upper Triassic Nicola Group metasediments and metavolcanics, which are in contact to the east with Tulameen Ultramafic Complex rocks. No known mineralization exists on the property.

RELATED A.R.: 15928

Banbury A.R. 16746 REPORT YEAR: 1987

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Sanford, M.R.
MINING DIV: Osoyoos
LOCATION: NTS 092H08E LAT. 49 21 40 LONG. 120 07 46
CLAIM(S): Lots 44s-45s,Lot 3356s,Tony,Pine Knot
WORK DONE: DIAD 1676.4 m 8 hole(s);NQ
LINE 8.9 km
ROCK 2409 sample(s);AU
SAMP 1184 sample(s);AU
SOIL 1671 sample(s);AU,AS,CU,PB,ZN
TREN 954.0 m 11 trench(es)

GEOLOGY: The property lies on the contact between the Hedley sequence and the Whistle Creek sequence. These units strike north, are steeply dipping, and young to the west. A Hedley intrusion known as the Banbury Stock cuts through all stratigraphic units. Many small dykes invade the country rocks and represent at least two generations.

RELATED A.R.: 15601

Billy Goat A.R. 17783 REPORT YEAR: 1988, 14 Pages, 1 Map(s)

OPERATOR(S): **Hedley-Sterling Ex.**
AUTHOR(S): Kregosky, R.
MINING DIV: Osoyoos
LOCATION: NTS 092H08E LAT. 49 23 00 LONG. 120 04 44
CLAIM(S): Billy Goat 1-2
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 34.0 ha - 1 Map(s); 1:3600

GEOLOGY: The property is underlain by metasedimentary rocks belonging to the Hedley sequence of Late Triassic age. These have been cut by dioritic rocks belonging to the Hedley Intrusions of Middle Jurassic age. Base and precious metal mineralization is associated with skarn development.

Crackerjack A.R. 17784 REPORT YEAR: 1988, 21 Pages, 1 Map(s)

OPERATOR(S): **Hedley-Sterling Ex.**
AUTHOR(S): Kregosky, R.
MINING DIV: Osoyoos
LOCATION: NTS 092H08E LAT. 49 22 08 LONG. 120 04 20
CLAIM(S): OIC Fr. (L.3276),Crackerjack (L.3278)
EXPL. TARGET: Gold
WORK DONE: GEOL 1.4 ha - 1 Map(s); 1:1000
ROCK 31 sample(s);ME

GEOLOGY: The property is underlain by a thick, interbedded sequence of limestones, argillites, quartzites and cherts belonging to the Hedley Formation of the Upper Triassic Nicola Group. These have been intruded by diorite sills and dykes. Precious metal mineralization is associated with skarn development as well as quartz-filled shear zones.

MINFILE: 092HSE

FM A.R. 17369 REPORT YEAR: 1988, 25 Pages, 2 Map(s)

OPERATOR(S):	**Crooker, G.F.**	
AUTHOR(S):	Crooker, G.F.	
MINING DIV:	Similkameen	
LOCATION:	NTS 092H08E, 092H08W	LAT. 49 17 00 LONG. 120 15 17
CLAIM(S):	FM	
WORK DONE:	EMGR 7.5 km;VLF - 2 Map(s); 1:2500 LINE 8.5 km	
GEOLOGY:	The claim is underlain by Upper Triassic Nicola Group volcanic and/or sedimenmtary rocks.	

Gold Mine A.R. 17966 REPORT YEAR: 1988, 43 Pages, 1 Map(s)

OPERATOR(S):	**Philex Gold & Energy**	
AUTHOR(S):	Jones, H.M.	
MINING DIV:	Similkameen	
LOCATION:	NTS 092H08E	LAT. 49 20 00 LONG. 120 09 00
CLAIM(S):	Gold Mine	
EXPL. TARGET:	Gold,Silver	
WORK DONE:	GEOL 48.0 ha - 1 Map(s); 1:5000 LINE 10.8 km ROCK 20 sample(s);ME SOIL 271 sample(s);ME	
GEOLOGY:	Interbedded argillite and tuff, with minor chert and limestone, of the Upper Triassic Nicola Group, underlies the claims. These rocks are intruded by diorite and andesite as narrow dykes and sills, and as small stocks. Within the sediments are one or more calcite breccia zones, well pyritized and one large zone of "slump breccia" (Copperfield conglomerate). Minor disseminated pyrite and pyrrhotite occur throughout. Calcite breccia zones are heavily mineralized with pyrite, locally with significant gold values. One significant gold bearing quartz carbonate fault structure is known on the property.	

Mission A.R. 16916 REPORT YEAR: 1987, 26 Pages

OPERATOR(S):	**Agio Res.**	
AUTHOR(S):	Kregosky, R.	
MINING DIV:	Osoyoos	
LOCATION:	NTS 092H08E	LAT. 49 20 00 LONG. 120 07 00
CLAIM(S):	Flint,Mission	
EXPL. TARGET:	Gold,Silver	
WORK DONE:	DIAD 224.3 m 3 hole(s);NQ	
GEOLOGY:	Argillites, siltstones, limestones and tuffs of the Jurassic/ Triassic Hedley Formation have been intruded by sills, dykes and stocks of diorite. Pyrite, arsenopyrite and sphalerite with associated precious metals occur in shear zones within the diorites.	
MINFILE:	092HSE052	

Patsy A.R. 17770 REPORT YEAR: 1988, 13 Pages, 1 Map(s)

OPERATOR(S):	**Vandorex Energy**	
AUTHOR(S):	Jones, H.M.	
MINING DIV:	Similkameen	
LOCATION:	NTS 092H08E	LAT. 49 20 30 LONG. 120 11 30
CLAIM(S):	Patsy 1	
EXPL. TARGET:	Gold	
WORK DONE:	MAGG 11.0 km - 1 Map(s); 1:2500	
GEOLOGY:	Upper Triassic Nicola Group volcanic and sedimentary rocks, consisting of andesitic tuffs, volcanic sandstones and lesser argillite, are poorly exposed on the property. Soil samples contain slightly elevated gold values, and one 1320 ppb gold.	
RELATED A.R.:	11901, 13197	

Ruby A.R. 17785 REPORT YEAR: 1988, 20 Pages

OPERATOR(S):	**Hedley-Sterling Ex.**	
AUTHOR(S):	Kregosky, R.	
MINING DIV:	Osoyoos	
LOCATION:	NTS 092H08E	LAT. 49 22 00 LONG. 120 06 00
CLAIM(S):	Ruby	
EXPL. TARGET:	Gold	
WORK DONE:	GEOL 25.0 ha SOIL 209 sample(s);AS	
GEOLOGY:	The property is underlain by the Hedley sequence of sedimentary rocks of Late Triassic age, which has been intruded by dioritic rocks of the Hedley Intrusions of Jurassic age. Precious metals are associated with pyrite, pyrrhotite and arsenopyrite mineralization at zones of skarn development.	

Similkameen A.R. 17085 REPORT YEAR: 1988, 92 Pages, 8 Map(s)

OPERATOR(S):	**Chevron Can. Res.**	
AUTHOR(S):	McAllister, S.G. McPherson, M.D.	
MINING DIV:	Osoyoos	
LOCATION:	NTS 092H08E	LAT. 49 16 45 LONG. 120 04 56
CLAIM(S):	Lost Horse 1-4,Lost Horse A-B,Lost Horse 86	
EXPL. TARGET:	Gold	
WORK DONE:	DIAD 187.8 m 1 hole(s);NQ - 2 Map(s); 1:500,1:100 GEOL 440.0 ha - 4 Map(s); 1:5000,1:500 ROCK 125 sample(s);ME SOIL 368 sample(s);ME - 2 Map(s); 1:5000	
GEOLOGY:	The Late Triassic Whistle Creek Formation underlies most of the property and consists predominantly of westerly dipping andesitic tuffs with minor interbedded clastic sediments and limestone lenses. The Copperfield conglomerate is a limestone boulder conglomerate that is found at the base of the Whistle Creek Formation and overlies the Hedley Formation of interbedded clastic sediments, carbonates and minor tuffs. Jurassic Cahill Creek granodiorite crops out on the eastern part of the claim. Hornblende-feldspar porphyry sills, also of Jurassic age, cut the Triassic rocks. The clastic sediments of the Hedley Formation are hornfelsed and have undergone calcic alteration.	
MINFILE:	092HSE050	

Similkameen A.R. 17012 REPORT YEAR: 1988, 130 Pages, 14 Map(s)

OPERATOR(S):	**Chevron Can. Res.**	
AUTHOR(S):	McAllister, S.G. McPherson, M.D.	
MINING DIV:	Osoyoos	
LOCATION:	NTS 092H08E	LAT. 49 17 34 LONG. 120 04 31
CLAIM(S):	Jesse 1,Brown 1-4,Snafu 1-2,Camsell 1-4,Rice 2,Rice 4,Gap 1-3,Annabree 1	
EXPL. TARGET:	Gold	
WORK DONE:	DIAD 117.9 m 1 hole(s);NQ - 2 Map(s); 1:500,1:100 GEOL 1000.0 ha - 2 Map(s); 1:5000 ROAD 0.5 km	

ROCK 160 sample(s);ME
SOIL 879 sample(s);ME - 4 Map(s); 1:5000
TOPO 4600.0 ha - 3 Map(s); 1:5000
TREN 697.2 m 3 trench(es) - 3 Map(s); 1:500

GEOLOGY: The Late Triassic Whistle Creek Formation underlies most of the property and consists predominantly of westerly dipping andesitic tuffs with minor interbedded clastic sediments and limestone lenses. The Copperfield conglomerate is a limestone boulder conglomerate that is found at the base of the Whistle Creek Formation of interbedded clastic sediments, carbonates and minor tuffs. Jurassic Cahill Creek granodiorite crops out on the eastern part of the claim. Hornblende-feldspar porphyry sills, also of Jurassic age, cut the Triassic rocks on the property.

MINFILE: 092HSE051, 092HSE110

WP A.R. 16896 REPORT YEAR: 1987, 150 Pages, 18 Map(s)

OPERATOR(S): **Cannelle Ex.**
AUTHOR(S): Crooker, G.F. Rockel, E.R.
MINING DIV: Similkameen
LOCATION: NTS 092H08E LAT. 49 19 00 LONG. 120 11 00
CLAIM(S): WP 1-3
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: EMGR 50.4 km;VLF - 3 Map(s); 1:2500
GEOL 420.0 ha - 2 Map(s); 1:2500
HMIN 5 sample(s);ME
LINE 57.5 km
MAGG 47.0 km - 3 Map(s); 1:2500
ROCK 45 sample(s);ME
SOIL 2069 sample(s);ME - 10 Map(s); 1:2500

GEOLOGY: Late Triassic Nicola Group volcanic and sedimentary rocks are intruded by stocks, sills and dykes of the Late Jurassic Similkameen and Middle Jurassic Hedley Intrusions. A number of coincidental copper, zinc, silver, nickel, chromium geochemical anomalies have been outlined on the claims. Gold mineralization in the Hedley Gold Camp is related to 1) skarns and 2) quartz-carbonate vein systems within shear zones.

Yak-Xavier A.R. 17429 REPORT YEAR: 1988, 58 Pages, 4 Map(s)

OPERATOR(S): **Cons. Sea Gold**
AUTHOR(S): Sanford, M.R.
MINING DIV: Osoyoos
LOCATION: NTS 092H08E LAT. 49 24 02 LONG. 120 05 27
CLAIM(S): Yak 1,Xavier 2
EXPL. TARGET: Gold
WORK DONE: EMGR 33.2 km;VLF
GEOL 506.0 ha - 1 Map(s); 1:5000
MAGG 33.2 km - 2 Map(s); 1:5000
SOIL 905 sample(s);AU - 1 Map(s); 1:5000

GEOLOGY: Soil and rock chip samples reveal gold anomalies in a contact environment between Upper Triassic diorites and Lower Triassic sediments.

RELATED A.R.: 11274
MINFILE: 092HSE065

Zandu A.R. 17430 REPORT YEAR: 1988, 67 Pages, 4 Map(s)

OPERATOR(S): **Cons. Sea Gold**
AUTHOR(S): Sanford, M.R.
MINING DIV: Osoyoos
LOCATION: NTS 092H08E LAT. 49 23 54 LONG. 120 04 06
CLAIM(S): Zandu,Yeti 1
EXPL. TARGET: Gold
WORK DONE: EMGR 36.7 km;VLF
GEOL 506.0 ha - 1 Map(s); 1:5000
MAGG 36.7 km - 2 Map(s); 1:5000
ROAD 1.1 km
SOIL 836 sample(s);AU - 1 Map(s); 1:5000

GEOLOGY: Soil and rock chip sample gold anomalies occur in a contact environment where Triassic Hedley diorite intrudes Upper Triassic Nicola Group limestones on the margin of a Jurassic granitic batholith.

RELATED A.R.: 14321, 15087
MINFILE: 092HSE

TNT A.R. 17715 REPORT YEAR: 1988, 27 Pages

OPERATOR(S): **Mingold Res.**
AUTHOR(S): Taylor, K.J.
MINING DIV: Similkameen
LOCATION: NTS 092H08W LAT. 49 29 00 LONG. 120 28 00
CLAIM(S): TNT
EXPL. TARGET: Copper,Gold
WORK DONE: SOIL 150 sample(s);AU,AG,CU

GEOLOGY: Copper-gold mineralization occurs within and adjacent to northwesterly trending faults cutting Upper Triassic to Lower Jurassic Nicola Group andesites and microdiorites. Within the fault zone, the rocks have been intensely kaolinized and/or sericitized and shattered. Adjacent rocks show chlorite-carbonate alteration with local epidote-ziosite. Size and attitude of mineralization is still unknown.

MINFILE: 092HSE078

Man A.R. 17004 REPORT YEAR: 1988, 14 Pages, 1 Map(s)

OPERATOR(S): **Brican Res.**
AUTHOR(S): Ziebart, P.
MINING DIV: Similkameen
LOCATION: NTS 092H09W LAT. 49 44 48 LONG. 120 29 08
CLAIM(S): Man
EXPL. TARGET: Copper,Gold
WORK DONE: PROS 200.0 ha - 1 Map(s); 1:5000
SILT 3 sample(s);AU,CU,PB,ZN,AG,AS,SB
SOIL 25 sample(s);AU,CU,PB,ZN,AG,AS,SB

GEOLOGY: The property is underlain by porphyritic and trachytic volcanic rocks and syenitic intrusive rocks of the Upper Triassic Nicola Group. Gold and copper mineralization occurs in altered rocks along major faults.

Hit-Miss A.R. 17243 REPORT YEAR: 1988, 45 Pages, 1 Map(s)

OPERATOR(S): **First Western Platinum** **Can. Nickel**
AUTHOR(S): Groeneweg, W.
MINING DIV: Similkameen
LOCATION: NTS 092H10E LAT. 49 40 48 LONG. 120 31 50
CLAIM(S): Miss 2

EXPL. TARGET: Copper,Lead,Zinc
WORK DONE: DIAD 559.0 m 3 hole(s);NQ - 1 Map(s); 1:2500
SAMP 271 sample(s);ME
GEOLOGY: The claims are underlain by a moderate to steeply dipping north trending sequence of Upper Triassic Nicola Group alkaline volcanics, volcaniclastics and syenodioritic intrusives. Strong north trending shear zones correspond with a 2200 metre long by 100-800 metre wide highly silica-clay altered bleached zone which contains several per cent pyrite and minor chalcopyrite. East of the altered zone, a north trending 50 metre wide zone of quartz stockwork in weakly altered volcanics contains minor chalopyrite, sphalerite, galena, silver and gold.
RELATED A.R.: 10437, 10962, 13755
MINFILE: 092HNE157

Sadim A.R. 16889 REPORT YEAR: 1988, 163 Pages, 28 Map(s)

OPERATOR(S): **Summers Creek Res.**
AUTHOR(S): Watson, I.M.
MINING DIV: Similkameen
LOCATION: NTS 092H10E LAT. 49 43 00 LONG. 120 32 30
CLAIM(S): Sadim 1-6
EXPL. TARGET: Gold,Copper
WORK DONE: DIAD 943.0 m 9 hole(s);NQ - 9 Map(s); 1:200
EMGR 17.9 km;VLF - 1 Map(s); 1:2500
GEOL 150.0 ha - 1 Map(s); 1:2500
MAGG 17.9 km - 1 Map(s); 1:2500
ROAD 0.9 km
ROCK 1023 sample(s);AU,AG,PB,CU - 7 Map(s); 1:12 000,1:2500,1:400,1:200
SAMP 883 sample(s);AU,AG,PB,CU - 5 Map(s); 1:200
TREN 2045.0 m 27 trench(es) - 4 Map(s); 1:400,1:200
GEOLOGY: Upper Triassic Nicola Group alkaline and calc-alkaline basalts and derived monolithic and polylithic breccias and tuffs and minor sediments occur within northerly trending fault bounded belts. The volcano-sedimentary rocks are intruded and propylitized by comagmatic dioritic intrusions. Fracture controlled copper mineralization occurs in alteration zones. Gold has been found locally in quartz-vein stockworks within fractured altered volcanics.
RELATED A.R.: 15969
MINFILE: 092HNE

Thor A.R. 17118 REPORT YEAR: 1988, 64 Pages, 4 Map(s)

OPERATOR(S): **Vanco Ex.**
AUTHOR(S): Watson, I.M.
MINING DIV: Nicola
LOCATION: NTS 092H10E, 092H15E LAT. 49 48 01 LONG. 120 32 13
CLAIM(S): Bloo,Climax,Thor 2,Thor 5,Thor 8,Thor 10-16
EXPL. TARGET: Copper
WORK DONE: ROCK 623 sample(s);AU,AG,PB,CU - 4 Map(s); 1:12 000,1:5000
SOIL 118 sample(s);AU,AG,PB,CU
GEOLOGY: Upper Triassic Nicola Group alkaline and calc-alkaline basalts and derived monolithic and polylithic breccias and tuffs and minor sediments occur within northerly trending fault bounded belts. The volcano-sedimentary rocks are intruded and propylitized by dioritic intrusions. Fracture controlled copper mineralization occurs in alteration zones.
MINFILE: 092HNE054, 092HNE089, 092HNE090, 092HNE148, 092HNE150

Blue Gold A.R. 17325 REPORT YEAR: 1987, 92 Pages

OPERATOR(S): **West Coast Platinum** **Blast Res.**
AUTHOR(S): Zastavnikovich, S. Burton, A. Wilson, J.
MINING DIV: Similkameen
LOCATION: NTS 092H10W LAT. 49 31 58 LONG. 120 55 15
CLAIM(S): Golden Dew,Blue Gold,Red Gold,Blackgold 4,Blackgold 6
WORK DONE: HMIN 15 sample(s);ME
LSUR 23.0 km
ROCK 66 sample(s);ME
SOIL 72 sample(s);ME
GEOLOGY: A 500 metre wide zone of mylonitized Upper Triassic Nicola Group rocks separates Tulameen Ultramafic Complex rocks from the Eagle granodiorite to the east. A Tertiary intrusive is present in the centre of the property.
MINFILE: 092HNE

Britton Creek A.R. 17170 REPORT YEAR: 1988, 45 Pages, 1 Map(s)

OPERATOR(S): **Tiffany Res.**
AUTHOR(S): Chamberlain, J.A.
MINING DIV: Similkameen
LOCATION: NTS 092H10W LAT. 49 31 42 LONG. 120 54 00
CLAIM(S): R 1-3,D 1-3,J&L 1,J&L 2Fr.-3Fr.
EXPL. TARGET: Platinum,Gold,Chromium/Chromite,Nickel,Palladium,Osmium,Iridium
WORK DONE: ROCK 330 sample(s);AU,PT,PD,PH - 1 Map(s); 1:5000
GEOLOGY: The claims are underlain by ultramafic rocks of the Tulameen Ultramafic Complex. Native platinum and gold have been recovered from the Tulameen River, adjacent to the claims. Some of the chromite-rich parts of the ultramafic rocks contain up to 4400 ppb platinum. The present study delineated three platinum-anomalous zones which require detailed study to determine the controls on platinum mineraliztion.
RELATED A.R.: 12190
MINFILE: 092HNE128

H & H A.R. 17280 REPORT YEAR: 1988, 51 Pages, 1 Map(s)

OPERATOR(S): **North American Platinum**
AUTHOR(S): Zastavnikovich, S.
MINING DIV: Similkameen
LOCATION: NTS 092H10W LAT. 49 31 38 LONG. 120 51 46
CLAIM(S): H&H,Eastside,Westside
WORK DONE: ROCK 223 sample(s);ME
SILT 25 sample(s);ME
SOIL 500 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: From southwest to northeast the H&H group of claims are underlain by Tulameen Ultramafic Complex rocks consisting of a dunite core, olivine clinopyroxenite, syenogabbro and hornblende clinopyroxenite in contact with Upper Triassic metasediments and metavolcanics of the Nicola Group along Hines Creek, where copper-bearing outcrops have been located.
MINFILE: 092HNE

LA A.R. 17271 REPORT YEAR: 1987, 27 Pages, 1 Map(s)

OPERATOR(S): **Fortress Res.**
AUTHOR(S): Hunter, A.E. Englund, R.J.
MINING DIV: Similkameen

LOCATION: NTS 092H10W LAT. 49 34 16 LONG. 120 51 34
CLAIM(S): L.A. 3
WORK DONE: SOIL 42 sample(s);CU,PB,ZN,NI,AG,AU - 1 Map(s); 1:2500
GEOLOGY: Upper Triassic Nicola Group greenstones and Otter Intrusives underlie the bulk of the property. Scattered discontinuous lenses of argillite, representing sedimentary interbeds within the Nicola Group, were also noted. Barren milky white quartz stringers up to 0.5 metres in width occur.

Mount Henning A.R. 17431 REPORT YEAR: 1988, 133 Pages, 9 Map(s)

OPERATOR(S): **Odessa Ex.**
AUTHOR(S): Crooker, G.F.
MINING DIV: Nicola
LOCATION: NTS 092H10W LAT. 49 38 23 LONG. 120 57 45
CLAIM(S): Indy,Indy 1,Dy 1-2
EXPL. TARGET: Gold,Silver,Copper,Molybdenum/Molybdenite
WORK DONE: GEOL 5.0 ha - 1 Map(s); 1:1000,1:200
LINE 38.6 km
ROAD 15.0 km
ROCK 46 sample(s);ME
SOIL 1500 sample(s);ME - 8 Map(s); 1:2500
GEOLOGY: Eagle granodiorite of Upper Triassic-Lower Cretaceous age intrudes Upper Triassic Nicola Group volcanics. Copper, gold and molybdenum mineralization occurs within a complex network of intrusives, breccias and quartz veins along the contact zone. Widespread sulphide mineralization is present.
MINFILE: 092HNE006

Rambler A.R. 16826 REPORT YEAR: 1987, 44 Pages, 6 Map(s)

OPERATOR(S): **Bordeaux Res.**
AUTHOR(S): Blank, M.E. Hunter, A.E.
MINING DIV: Similkameen
LOCATION: NTS 092H10W LAT. 49 34 09 LONG. 120 53 28
CLAIM(S): Shelley,Murphy,Morning Sun
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: EMGR 8.5 km;VLF - 2 Map(s); 1:2500
GEOL 290.0 ha - 1 Map(s); 1:5000
LINE 8.5 km
MAGG 8.5 km - 1 Map(s); 1:2500
ROCK 6 sample(s);ME
SILT 5 sample(s);AU,CU,PB,ZN,AG,NI
SOIL 235 sample(s);AU,CU,PB,ZN,AG,NI - 2 Map(s); 1:2500
GEOLOGY: The claims are generally underlain by Upper Triassic Nicola Group rocks. Massive crystalline limestones, limy sediments and sericite schists with bodies of massive sulphides occurring sporadically in the limestone become prevalent in the area of the crown grants. Mineralization occurs as pyrite, pyrrhotite and sphalerite with associated copper, lead, silver and gold values.
MINFILE: 092HNE016, 092HNE064, 092HNE065

Rambler A.R. 17272 REPORT YEAR: 1988, 21 Pages, 7 Map(s)

OPERATOR(S): **Bordeaux Res.**
AUTHOR(S): Hunter, A.E.
MINING DIV: Similkameen
LOCATION: NTS 092H10W LAT. 49 34 09 LONG. 120 53 28
CLAIM(S): Shelley
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: IPOL 2.1 km - 7 Map(s); 1:2500,1:1000
GEOLOGY: The claims are generally underlain by Upper Triassic Nicola Group rocks. Massive crystalline limestones, limy sediments and sericite schists with bodies of massive sulphides occurring sporadically in the limestones become prevalent in the area of the crown grants. Mineralization occurs as massive sulphides consisting of pyrite, pyrrhotite and sphalerite with associated copper, lead, silver and gold values.
RELATED A.R.: 16826
MINFILE: 092HNE016, 092HNE065

Rambler A.R. 17397 REPORT YEAR: 1988, 36 Pages, 1 Map(s)

OPERATOR(S): **Merit Technologies**
AUTHOR(S): Cruickshank, P.
MINING DIV: Similkameen
LOCATION: NTS 092H10W LAT. 49 32 39 LONG. 120 51 31
CLAIM(S): E,R,Rambler (L.1191)
EXPL. TARGET: Gold
WORK DONE: ROCK 7 sample(s);AU
SOIL 299 sample(s);AU - 1 Map(s); 1:2000
GEOLOGY: Quartz-carbonate veins, known to be mineralized with gold, occur in shear zones within Upper Triassic Nicola Group volcanic and sedimentary rocks. The Rambler fissure-type vein occurs in metamorphosed sediments.
MINFILE: 092HNE013

Rambler A.R. 17926 REPORT YEAR: 1988, 60 Pages, 1 Map(s)

OPERATOR(S): **Bordeaux Res.**
AUTHOR(S): Blank, M.E.
MINING DIV: Similkameen
LOCATION: NTS 092H10W LAT. 49 34 00 LONG. 120 54 00
CLAIM(S): Murphy,Shelley
EXPL. TARGET: Copper,Lead,Zinc,Gold,Silver
WORK DONE: DIAD 179.2 m 4 hole(s);BQ
GEOL 600.0 ha - 1 Map(s); 1:10 000
ROAD 1.2 km
ROCK 69 sample(s);CU,PB,ZN,AU,AG,AS
TREN 170.0 m 5 trench(es)
GEOLOGY: The property is underlain by Triassic Nicola Group metavolcanics and the younger Eagle granodiorite. The rocks trend north-northwest and have a low to moderate southwest dip. Mineralization consists of massive sulphides of pyrite, pyrrhotite, sphalerite with associated chalcopyrite, galena and malachite.
RELATED A.R.: 14717, 15419
MINFILE: 092HNE016, 092HNE064, 092HNE065, 092HNE066

Sulphide A.R. 17597 REPORT YEAR: 1988, 21 Pages, 6 Map(s)

OPERATOR(S): **Sookochoff, L.**
AUTHOR(S): Sookochoff, L.
MINING DIV: Similkameen
LOCATION: NTS 092H10W LAT. 49 37 00 LONG. 120 50 00
CLAIM(S): Sulphide
WORK DONE: SOIL 156 sample(s);AU,ME - 6 Map(s); 1:5000
GEOLOGY: The claims are underlain by Triassic Nicola Group rocks

consisting of vari-coloured lava, argillite, tuff, limestone, chlorite and sericite shcist.
RELATED A.R.: 16276

Aurum A.R. 17982 **REPORT YEAR: 1988, 237 Pages, 5 Map(s)**

OPERATOR(S): **Giant Bay Res.**
AUTHOR(S): Shearer, J.T.
MINING DIV: New Westminster
LOCATION: NTS 092H11E LAT. 49 31 00 LONG. 121 17 00
CLAIM(S): Aurum 1-2,Idaho
EXPL. TARGET: Gold
WORK DONE: UNDD 2686.2 m 22 hole(s);AQ - 5 Map(s); 1:500
GEOLOGY: The Aurum Mine was a small gold producer in the late 1920's to early 1930's. Aurum mineralization is characterized by very coarse native gold. The mineralized zone is contained in an altered, talcose shear fault closely related to the East Hozameen Fault. The Hozameen Fault is a major crustal suture marking the boundary between an ultramafic complex and Triassic andesite and Jurassic Ladner Group metasediments. Numerous silicified altered zones were found with varying amounts of pyrite, arsenopyrite and pyrrhotite assaying up to 0.524 ounces per tonne gold over 1.50 metres.
MINFILE: 092HNW003

Juliet A.R. 17306 **REPORT YEAR: 1988, 158 Pages, 9 Map(s)**

OPERATOR(S): **Leigh Res.**
AUTHOR(S): Crooker, G.F. Rockel, E.R.
MINING DIV: Nicola
LOCATION: NTS 092H11E LAT. 49 44 00 LONG. 121 04 00
CLAIM(S): Juliet,Juliet 1-5
EXPL. TARGET: Copper,Molybdenum/Molybdenite,Gold,Silver
WORK DONE: EMGR 25.6 km; VLF - 2 Map(s); 1:2500
GEOL 300.0 ha - 1 Map(s); 1:5000,1:2500,1:500
LINE 27.6 km
MAGG 25.6 km - 1 Map(s); 1:2500
ROCK 103 sample(s);ME
SILT 96 sample(s);ME - 1 Map(s); 1:2500
SOIL 1045 sample(s);ME - 4 Map(s); 1:2500
GEOLOGY: Quartz veins and a quartz stockwork breccia occur within Upper Triassic - Lower Cretaceous Eagle granodiorite. Pyrite with lesser chalcopyrite and molybdenite occur within the stockwork, accompanied by anomalous values of gold and silver.
RELATED A.R.: 16436
MINFILE: 092HNW025

CM A.R. 18183 **REPORT YEAR: 1988, 11 Pages, 1 Map(s)**

OPERATOR(S): **Bragg, D.K.**
AUTHOR(S): Bragg, D.K.
MINING DIV: New Westminster
LOCATION: NTS 092H12E LAT. 49 42 00 LONG. 121 44 00
CLAIM(S): CM 1-2
EXPL. TARGET: Molybdenum/Molybdenite
WORK DONE: PROS 6.0 ha - 1 Map(s); 1:5000
GEOLOGY: Molybdenite occurs within fractures and disseminated in a small leucocratic granitic stock intruded into a gneissic granodiorite complex at the site of a hot springs 15 kilometres northeast of the Harrison Lake Fault system.

North Fork A.R. 17558 **REPORT YEAR: 1988, 82 Pages, 1 Map(s)**

OPERATOR(S): **Minnova**
AUTHOR(S): Burge, C.M.
MINING DIV: New Westminster
LOCATION: NTS 092H12E LAT. 49 34 36 LONG. 121 44 40
CLAIM(S): North Fork
EXPL. TARGET: Copper,Zinc,Silver,Gold
WORK DONE: DIAD 654.0 m 4 hole(s);NQ - 1 Map(s); 1:2000
SAMP 62 sample(s);ME
GEOLOGY: The property is underlain by a steep dipping, east-facing package of metavolcanic and metasedimentary rocks. The North Fork stratigraphy is currently assigned to the Permo-Pennsylvanian Chilliwack Group. The massive sulphide occurrence is hosted in metabasalt flows, tuffs, chert and terrigeneous sediments.
MINFILE: 092HNW070

Dawn A.R. 18018 **REPORT YEAR: 1988, 29 Pages, 1 Map(s)**

OPERATOR(S): **Graham, C.F.**
AUTHOR(S): Smitheringale, W.G.
MINING DIV: Nicola
LOCATION: NTS 092H15E LAT. 49 56 24 LONG. 120 36 24
CLAIM(S): Dawn 100
EXPL. TARGET: Copper
WORK DONE: DIAD 160.1 m - 1 Map(s); 1:10 000
SAMP 13 sample(s);AU,AG,CU
GEOLOGY: The underlying rocks are mainly basalt and andesite flows, lahar and related intrusives of the Upper Triassic Nicola Group. Drilling intersected native copper disseminated in andesite, and chalcopyrite and bornite in small carbonate-filled fractures.
MINFILE: 092HNE004, 092HNE005, 092HNE077

Dor A.R. 17554 **REPORT YEAR: 1988, 73 Pages, 8 Map(s)**

OPERATOR(S): **Redding Gold**
AUTHOR(S): Windsor, D.M.
MINING DIV: Nicola
LOCATION: NTS 092H15E, 092I02E LAT. 49 59 00 LONG. 120 36 00
CLAIM(S): Dor
EXPL. TARGET: Copper
WORK DONE: EMGR 18.1 km;VLF - 2 Map(s); 1:2500
GEOL 150.0 ha - 1 Map(s); 1:2500
LINE 18.9 km
MAGG 18.9 km - 1 Map(s); 1:2500
ROCK 15 sample(s);AU,AG,CU,PB,ZN,MO,FE
SOIL 374 sample(s);CU,PB,ZN,AG,MO,MN,SB - 4 Map(s); 1:2500
GEOLOGY: The property is comprised of rocks of the Upper Triassic Nicola Group. The two prominent rock types located on the property as described by Preto (1979), are flows ranging from basalt to rhyolite in composition and green, red volcanic breccia and laharic deposits. Rice (1960), describes the showings on the Dor claim to occur in a brecciated zone in augite andesite porphyry. The rocks in this zone are somewhat altered to epidote and jasper and are mineralized with chalcopyrite, chalcocite, and secondary copper carbonates and a little native copper.
MINFILE: 092ISE164, 092HNE036

Snowflake A.R. 17523 REPORT YEAR: 1988, 79 Pages, 21 Map(s)

OPERATOR(S): **Gerle Gold**
AUTHOR(S): Watson, I.M.
MINING DIV: Nicola
LOCATION: NTS 092H15E LAT. 49 58 44 LONG. 120 34 57
CLAIM(S): Snowflake 7,Snowflake 10
EXPL. TARGET: Gold,Copper
WORK DONE: DIAD 1239.0 m 16 hole(s);NQ - 21 Map(s); 1:1000,1:250
SAMP 669 sample(s);AU,AG,CU
GEOLOGY: Upper Triassic Nicola Group alkaline and calc-alkaline basalts and derived monolithic and polylithic breccias and tuffs and minor sediments occur within northerly trending fault bounded belts. Generally, dips are steep and to the west. The volcano-sedimentary rocks are intruded and propylitized by comagmatic complex alkaline plutons of syenitic-gabbroic composition. Widespread fracture controlled copper mineralization occurs in alteration zones. Gold has been found locally in fractured altered volcanics and sediments.
RELATED A.R.: 14983
MINFILE: 092HNE105

Snowflake A.R. 18019 REPORT YEAR: 1988, 63 Pages, 1 Map(s)

OPERATOR(S): **Gerle Gold**
AUTHOR(S): Smitheringale, W.G.
MINING DIV: Nicola
LOCATION: NTS 092H15E LAT. 49 58 36 LONG. 120 34 30
CLAIM(S): Snowflake 7,Snowflake 10
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: DIAD 304.0 m 3 hole(s);NQ - 1 Map(s); 1:1000
SAMP 220 sample(s);AU,AG,CU
GEOLOGY: Andesitic and dacitic lahar deposits, agglomerates, tuffs and associated argillaceous limestone of the Upper Triassic Nicola Group strike northward and dip west. These rocks are cut by north-striking faults, and cross faults. The volcanics show sericite, chlorite and epidote alteration. Gold and silver values accompany chalcopyrite in thin carbonate fracture-controlled veinlets.
RELATED A.R.: 14983
MINFILE: 092HNE061

Spring A.R. 17560 REPORT YEAR: 1987, 25 Pages, 9 Map(s)

OPERATOR(S): **Golden Pick Res.**
AUTHOR(S): Mark, D.G.
MINING DIV: Similkameen
LOCATION: NTS 092H16E LAT. 49 47 00 LONG. 120 08 00
CLAIM(S): Spring 3
EXPL. TARGET: Gold
WORK DONE: IPOL 3.5 km
REST 3.5 km - 9 Map(s); 1:1000
GEOLOGY: The property is underlain by extrusive volcanics of the Upper Triassic Nicola Group[?], and granite and granodiorite of the Jurassic or younger Coast Intrusions. Epithermal zones of kaolin alteration are being explored for possible gold mineralization.
RELATED A.R.: 10108, 14989
MINFILE: 092HNE108

Travis A.R. 16977 REPORT YEAR: 1987, 13 Pages, 20 Map(s)

OPERATOR(S): **Brenda Mines**
AUTHOR(S): Bradish, L.
MINING DIV: Similkameen
LOCATION: NTS 092H16E LAT. 49 47 00 LONG. 120 04 00
CLAIM(S): Moss 1-6,Travis
EXPL. TARGET: Copper,Molybdenum/Molybdenite
WORK DONE: IPOL 19.0 km - 18 Map(s); 1:2500,1:5000
MAGG 12.4 km - 2 Map(s); 1:2500
GEOLOGY: The current exploration of these claims for porphyry type mineralization reflects proximity to the Brenda mine. The geophysical survey mapped a major elliptical shape anomaly near apparent geological contacts.
RELATED A.R.: 09123, 10108
MINFILE: 092HNE051

Elk A.R. 16644 REPORT YEAR: 1988, 222 Pages, 20 Map(s)

OPERATOR(S): **Fairfield Min.**
AUTHOR(S): Jakubowski, W.
MINING DIV: Similkameen
LOCATION: NTS 092H16W LAT. 49 50 26 LONG. 120 18 55
CLAIM(S): Elk 1-27
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 4.8 km;VLF - 2 Map(s); 1:2000
GEOL 4000.0 ha - 1 Map(s); 1:10 000
IPOL 4.5 km
LINE 43.5 km
MAGG 4.8 km - 4 Map(s); 1:2000
PETR 4 sample(s)
ROAD 1.4 km
ROCK 791 sample(s);ME
SOIL 8424 sample(s);AU - 4 Map(s); 1:10 000,1:2000,1:1000
TREN 1528.0 m 10 trench(es) - 9 Map(s); 1:200,1:100
GEOLOGY: The Elk property is underlain by volcanic and sedimentary rocks of the Upper Triassic Nicola Group and by granites of the Jurassic Similkameen Intrusions. Quartz vein hosted gold-silver mineralization has been found in granite and Tertiary andesite dykes. Veins vary in width from 1.5 centimetres to 80 centimetres and have been traced for 78 metres. Gold mineralization has also been found in clay altered granite.
MINFILE: 092HNE134, 092HNE137

Prime A.R. 17077 REPORT YEAR: 1987, 22 Pages

OPERATOR(S): **Cons. Silver Butte Mines**
AUTHOR(S): Christopher, P.A.
MINING DIV: Similkameen
LOCATION: NTS 092H16W LAT. 49 45 30 LONG. 120 29 00
CLAIM(S): Prime,Prime 1
EXPL. TARGET: Copper,Gold
WORK DONE: ROCK 9 sample(s);ME
SOIL 350 sample(s);ME
GEOLOGY: The property is underlain by Upper Triassic Nicola Group volcanic rocks that have been intruded by fine-grained feldspar porphyry, diorite and syenite. Copper and gold mineralization occurs in structurally controlled zones with mainly malachite, azurite and

neotocite near surface and chalcopyrite plus minor bornite increasing at depth. Pyrite occurs as both fracture and disseminated mineralization with chalcopyrite.
RELATED A.R.: 06412, 06877, 06900, 07430, 07521, 08241, 08364, 08692, 09649, 13932, 16985
MINFILE: 092HNE055, 092HNE056, 092HNE110

Prime A.R. 16985 REPORT YEAR: 1988, 24 Pages

OPERATOR(S): **Cons. Silver Butte Mines**
AUTHOR(S): Christopher, P.A.
MINING DIV: Similkameen
LOCATION: NTS 092H16W LAT. 49 45 30 LONG. 120 29 00
CLAIM(S): Prime,Prime 1
EXPL. TARGET: Copper,Gold
WORK DONE: SOIL 224 sample(s);ME
GEOLOGY: The property is underlain by Upper Triassic Nicola Group volcanic rocks that have been intruded by fine-grained feldspar porphyry, diorite and syenite. Copper and gold mineralization occurs in structurally controlled zones with mainly malachite, azurite and neotocite near surface and chalcopyrite plus minor bornite increasing at depth. Pyrite occurs as both fracture and disseminated mineralization with chalcopyrite.
RELATED A.R.: 06412, 06877, 06900, 07430, 07521, 08241, 08364, 08692, 09649, 13231
MINFILE: 092HNE055, 092HNE056, 092HNE110

Wart A.R. 18041 REPORT YEAR: 1988, 70 Pages, 5 Map(s)

OPERATOR(S): **Kerr Addison Mines**
AUTHOR(S): Pautler, J. Daley, F.
MINING DIV: Similkameen
LOCATION: NTS 092H16W LAT. 49 53 00 LONG. 120 19 00
CLAIM(S): Wart 1-4
EXPL. TARGET: Gold,Arsenic,Antimony
WORK DONE: GEOL 1880.0 ha - 4 Map(s); 1:10 000,1:250
HMIN 11 sample(s);ME
LINE 12.1 km
ROCK 115 sample(s);ME
SOIL 475 sample(s);ME - 1 Map(s); 1:10 000
GEOLOGY: The property is underlain by intermediate volcaniclastic rocks of the Nicola Group. Two intersecting fault zones are exposed in a new road cut of the Coquihalla Highway - Okanagan Connector. Moderate to intense limonite, epidote, chlorite and clay alteration is adjacent to the faults. Gold values to 600 ppb are associated with narrow, pyritic, clay-bearing fracture zones.

ASHCROFT 092I

Bonus A.R. 17277 REPORT YEAR: 1988, 23 Pages, 3 Map(s)

OPERATOR(S): **Iota Ex.**
AUTHOR(S): Elliott, B.
MINING DIV: Nicola
LOCATION: NTS 092I02E LAT. 50 02 00 LONG. 120 32 00
CLAIM(S): Bonus V
EXPL. TARGET: Copper,Molybdenum/Molybdenite,Gold,Silver
WORK DONE: PROS 30.0 ha - 1 Map(s); 1:2500
ROCK 15 sample(s);ME
SOIL 366 sample(s);ME - 2 Map(s); 1:2500
GEOLOGY: The region is underlain mainly by Upper Triassic volcanic, sedimentary and intrusive rocks of the Nicola Group. In places remnants of the Tertiary Coldwater group conglomerates and vesicular basalts overlie the Nicola Group. At Quilchena Creek an altered monzonite grades easterly into Jurassic? granodiorites of the Pennask Batholith.
MINFILE: 092ISE084

Snow Devil A.R. 17289 REPORT YEAR: 1988, 16 Pages, 1 Map(s)

OPERATOR(S): **Rock Ex.**
AUTHOR(S): Lodmell, R.D.
MINING DIV: Nicola
LOCATION: NTS 092I02E LAT. 50 05 47 LONG. 120 34 30
CLAIM(S): Snow Devil III-V
EXPL. TARGET: Copper
WORK DONE: PROS 600.0 ha - 1 Map(s); 1:5000
GEOLOGY: The area of the claims consists of Upper Triassic Nicola Group greenstone, andesite, basalt, agglomerate, breccia tuff, minor argillite, limestone and conglomerate with an intrusion of granitic rock in the northern part of the claims.

Iron Mountain A.R. 16817 REPORT YEAR: 1987, 54 Pages

OPERATOR(S): **Golden Dynasty Res.**
AUTHOR(S): Crooker, G.F.
MINING DIV: Nicola
LOCATION: NTS 092I02W LAT. 50 02 18 LONG. 120 46 49
CLAIM(S): Fierro 3,By,Four
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc,Barium/Barite
WORK DONE: EMGR 26.0 km;VLF
GEOL 1.0 ha
LINE 27.4 km
MAGG 12.5 km
ROCK 11 sample(s);ME
SAMP 7 sample(s);AU
SOIL 380 sample(s);ME
GEOLOGY: The property is underlain by Upper Triassic Nicola Group volcanic and sedimentary rocks. Volcanogenic massive sulphide lead-zinc-silver-barite mineralization occurs at the Lucky Todd shaft and L.D. showing. Structurally controlled quartz-specularite-gold veins occur at the Charmer showing. Values of up to 10.1 grams per tonne gold over 1 metre have been returned from this showing.
MINFILE: 092ISE052, 092ISE053, 092ISE198

Key A.R. 17677 REPORT YEAR: 1988, 37 Pages, 4 Map(s)

OPERATOR(S): **Better Res.**
AUTHOR(S): Bristow, J.F.
MINING DIV: Nicola
LOCATION: NTS 092I02W LAT. 50 13 00 LONG. 120 59 00
CLAIM(S): Number Four,Betty
EXPL. TARGET: Copper,Iron
WORK DONE: DIAD 288.9 m 1 hole(s);BQ - 1 Map(s); 1:2000
GEOL 100.0 ha - 1 Map(s); 1:2500
LINE 21.8 km
MAGG 21.8 km - 2 Map(s); 1:2500
GEOLOGY: The property is underlain by a complex suite of steeply dipping

Triassic Nicola rocks composed of basaltic andesitic fragmental and volcanic flows, feldspathic greywacke, hornfels, rhyolitic volcanics and several relatively persistent calcareous bands. They are in contact with Upper Triassic intrusive Guichon Batholith.

RELATED A.R.: 16492
MINFILE: 092ISE173

Stirling A.R. 17721 REPORT YEAR: 1988, 70 Pages

OPERATOR(S): **Merlin Res.**
AUTHOR(S): Nelles, D.M.
MINING DIV: Nicola
LOCATION: NTS 092I02W LAT. 50 02 00 LONG. 120 47 00
CLAIM(S): Diane 1-2
EXPL. TARGET: Gold,Copper,Silver
WORK DONE: DIAD 569.9 m 9 hole(s);NQ
PETR 2 sample(s)
PITS 1 pit(s)
ROAD 5.0 km
SAMP 110 sample(s);AU,AG,CU

GEOLOGY: The Stirling property is underlain by a northeast trending belt of marine and continental volcanic and sedimentary rocks belonging to the Upper Triassic Nicola Group. These rocks have been effectively divided into three subparallel belts by two persistent north trending, high angle fault systems.

Massive hematite, controlled by and localized in fractures and occurring in association with limonite and malachite, is the predominant mineralization exposed on the property. In several locations, late stage quartz-hematite-limonite veining has been superimposed on this mineralization. Precious metal mineralization is associated with this hydrothermal veining.

RELATED A.R.: 12799, 13114, 16058
MINFILE: 092ISE209

Gold Ridge A.R. 16857 REPORT YEAR: 1987, 15 Pages

OPERATOR(S): **Lacombe, R.**
AUTHOR(S): Cardinal, D.G.
MINING DIV: Kamloops
LOCATION: NTS 092I04E LAT. 50 04 35 LONG. 121 39 33
CLAIM(S): Gold Ridge 3-4
EXPL. TARGET: Gold
WORK DONE: HMIN 7 sample(s);ME
LINE 6.0 km
PROS 400.0 ha

GEOLOGY: The property is underlain by metasediments and metavolcanics of Triassic(?) age in fault contact with northwest trending serpentinite. Anomalous gold is hosted in north-northwest trending quartz structures and associated shear zones. The quartz structures are spatially related to local quartz monzonitic plugs.

MINFILE: 092ISW055, 092ISW056

Mt. Roach A.R. 17945 REPORT YEAR: 1988, 43 Pages, 3 Map(s)

OPERATOR(S): **Roa Gold**
AUTHOR(S): Clouthier, G.
MINING DIV: Kamloops
LOCATION: NTS 092I04E LAT. 50 13 00 LONG. 121 42 00
CLAIM(S): Roa 1-6
EXPL. TARGET: Gold
WORK DONE: GEOL 500.0 ha - 3 Map(s); 1:500,1:2000
PROS 1575.0 ha
ROCK 143 sample(s);AU,AG
SOIL 107 sample(s);AU,AG,AS
TREN 33.0 m 22 trench(es)

GEOLOGY: The property is underlain by a large granodiorite batholith of Late Cretaceous to Early Tertiary age. Gold-bearing quartz veins occur in a shear zone 50 to 100 metres wide. The veins are present intermittantly over a strike length of 1500 metres and a vertical extent of 400 metres. Arsenopyrite is the main sulphide in the veins which trend 315 degrees and dips 45 to75 degrees northeast.

MINFILE: 092ISW049

Laurie A.R. 18133 REPORT YEAR: 1988, 20 Pages

OPERATOR(S): **Cromore Res.**
AUTHOR(S): Allen, G.
MINING DIV: Kamloops
LOCATION: NTS 092I05E LAT. 50 22 30 LONG. 121 40 00
CLAIM(S): Laurie

CONFIDENTIAL STATUS

Pitquah A.R. 17729 REPORT YEAR: 1988, 23 Pages, 2 Map(s)

OPERATOR(S): **G.H. Rayner & Assoc.**
AUTHOR(S): Day, W.C.
MINING DIV: Kamloops
LOCATION: NTS 092I06W LAT. 50 15 57 LONG. 121 28 55
CLAIM(S): R-1,Pit 1-2
EXPL. TARGET: Copper,Zinc,Gold,Platinum
WORK DONE: ROCK 46 sample(s);ME - 1 Map(s); 1:5000
SILT 16 sample(s);ME
TOPO 650.0 ha - 1 Map(s); 1:5000

GEOLOGY: The claims appear to be underlain by a variety of intrusive rocks ranging in composition from granite to diorite to ultramafic rocks. This series of rocks may be part of a large layered intrusion of unknown extent.

MINFILE: 092ISW030

Clapper A.R. 18042 REPORT YEAR: 1988, 75 Pages, 3 Map(s)

OPERATOR(S): **Kerr Addison Mines**
AUTHOR(S): Daley, F. Pautler, J.
MINING DIV: Nicola
LOCATION: NTS 092I07E LAT. 50 17 00 LONG. 120 38 00
CLAIM(S): Clapper 1-4
EXPL. TARGET: Gold,Copper
WORK DONE: EMGR 14.0 km; VLF
GEOL 1700.0 ha - 2 Map(s); 1:10 000,1:5000
HMIN 15 sample(s);AU

LINE 14.0 km
ROCK 106 sample(s);ME
SOIL 617 sample(s);ME - 1 Map(s); 1:10 000

GEOLOGY: The claims straddle a fault contact between volcanics and sediments of the Triassic Nicola Group, and a granodiorite stock of the Jurassic Coast Plutonic Complex. The fault is characterized by brecciation, pyritization, carbonate and epidote alteration, local clay alteration and silicification. Gold values up to 4200 ppb are apparently associated with narrow malachite-coated fractures in the Nicola volcanics.

MINFILE: 092ISE135

Des A.R. 17070 REPORT YEAR: 1987, 15 Pages, 2 Map(s)

OPERATOR(S): **Menika Min.**
AUTHOR(S): Boitard, C. LaRue, J.P.
MINING DIV: Nicola
LOCATION: NTS 092I07E LAT. 50 25 42 LONG. 120 39 04
CLAIM(S): Des
EXPL. TARGET: Copper,Gold
WORK DONE: IPOL 3.0 km - 2 Map(s); 1:2500

GEOLOGY: The Desmond Lake area lies in a broad belt of Upper Triassic Nicola Group volcanic rocks between the Guichon Batholith to the west and the Nicola Batholith to the east. The Nicola Group is made up of intermediate to mafic volcanic flows and breccias with minor sedimentary subfacies. Numerous other stocks and intrusive plugs intrude the Nicola Group rocks.

Oly A.R. 17849 REPORT YEAR: 1988, 24 Pages

OPERATOR(S): **Rockel, E.R.**
AUTHOR(S): Rockel, E.R.
MINING DIV: Kamloops
LOCATION: NTS 092I07E LAT. 50 27 00 LONG. 120 41 30
CLAIM(S): Olv 2

CONFIDENTIAL STATUS

Phelp 300 A.R. 17075 REPORT YEAR: 1988, 19 Pages, 1 Map(s)

OPERATOR(S): **Int. Potential Ex.**
AUTHOR(S): Orman, M.A. Englund, R.J.
MINING DIV: Nicola
LOCATION: NTS 092I07E LAT. 50 22 00 LONG. 120 43 00
CLAIM(S): Phelp 300
EXPL. TARGET: Copper,Zinc
WORK DONE: GEOL 40.0 ha - 1 Map(s); 1:2500
SOIL 26 sample(s);CU,PB,ZN,AG,AS

GEOLOGY: The property is underlain by Nicola Group sedimentary and volcanic rocks. The central Nicola and Guichon batholiths are east and west of the property. The Rey Lake low grade copper deposit is located 1.5 kilometres south of the property. In the southeast claim area the Nicola sediments have been intruded by a gabbro/diorite. Soil samples taken from a gully at the contact of these rock units contain anomalous values of silver and arsenic.

RELATED A.R.: 09057, 12341, 13732

WRT A.R. 18048 REPORT YEAR: 1988, 73 Pages, 4 Map(s)

OPERATOR(S): **Western Res. Tech.**
AUTHOR(S): Crooker, G.F. Rockel, E.R.
MINING DIV: Kamloops
LOCATION: NTS 092I07E LAT. 50 26 00 LONG. 120 40 00
CLAIM(S): WRT 1,WRT 4,WRT 9-10,WRT 12-15

CONFIDENTIAL STATUS

Wrt A.R. 17337 REPORT YEAR: 1988, 117 Pages, 10 Map(s)

OPERATOR(S): **Western Res. Tech.**
AUTHOR(S): Crooker, G.F. Rockel, E.R.
MINING DIV: Kamloops
LOCATION: NTS 092I07E LAT. 50 26 48 LONG. 120 36 50
CLAIM(S): Wrt 1,Wrt 4,Wrt 12-15
EXPL. TARGET: Copper,Zinc,Gold,Silver
WORK DONE: EMGR 16.8 km;VLF - 4 Map(s); 1:2500
GEOL 8.0 ha
LINE 22.2 km
MAGG 16.8 km - 2 Map(s); 1:2500
ROCK 13 sample(s);ME
SILT 9 sample(s);ME
SOIL 526 sample(s);ME - 4 Map(s); 1:2500

GEOLOGY: The property is underlain by Upper Triassic Nicola Group volcanic rocks and derivatives. Shears and fractures contain copper mineralization and silver values. Quartz-carbonate-mariposite alteration zones also occur on the property with precious metal potential. A flow-pyroclastic contact also has potential for stratabound massive sulphide mineralization.

MINFILE: 092ISE012, 092ISE147, 092ISE155, 092ISE170

Cig A.R. 17489 REPORT YEAR: 1988, 77 Pages, 4 Map(s)

OPERATOR(S): **New Hombre Res.**
AUTHOR(S): Sookochoff, L.
MINING DIV: Nicola
LOCATION: NTS 092I08W LAT. 50 18 34 LONG. 120 20 36
CLAIM(S): Cig 100
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 21.0 km;VLF - 1 Map(s); 1:2500
GEOL 126.0 ha - 1 Map(s); 1:2500
MAGG 16.2 km - 1 Map(s); 1:2500

SOIL 179 sample(s);ME - 1 Map(s); 1:2500

GEOLOGY: The area is underlain by the Upper Triassic Nicola Group consisting of argillite, siltstone, volcanics and intercalated tuff. A major structure, the north-northeast trending Tertiary Quilchena-Stump Lake fault system occurs two kilometres west of the claim. The claim is underlain by volcanic greenstone, fine grained to dioritic to diabasic in texture. Northeasterly and northwesterly striking quartz veins are at times mineralized with sulphides and contain gold and silver values. Alteration of wall rock consists of moderate to low carbonate and/or ankerite and/or silica.

RELATED A.R.: 14785
MINFILE: 092ISE193

Loranger A.R. 17163 REPORT YEAR: 1988, 114 Pages, 18 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Shevchenko, G.
MINING DIV: Nicola
LOCATION: NTS 092I08W LAT. 50 19 59 LONG. 120 20 13
CLAIM(S): JL 1,KL 1,Mary Reynolds/Gold Cup,Robert Dunsmuir
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: EMGR 29.7 km;VLF - 3 Map(s); 1:5000
GEOL 311.0 ha - 2 Map(s); 1:5000,1:1000
LINE 40.1 km
MAGG 31.7 km - 1 Map(s); 1:5000
ROCK 38 sample(s);ME
SOIL 2269 sample(s);ME - 12 Map(s); 1:5000,1:2500

GEOLOGY: A moderately southwest dipping package of Upper Triassic andesitic Nicola Group volcanics are cut by northeast trending, steeply dipping Tertiary shear zones. The shear zones are narrow and exhibit epithermal clay, quartz-carbonate alteration. The most prominent zone extends for a strike length of some 1050 metres and hosts several narrow alteration zones. Pyrite, sphalerite, galena, and chalcopyrite with associated precious metal values occur in the quartz veins hosted by the alteration zones.

MINFILE: 092ISE115

Peterhope A.R. 17287 REPORT YEAR: 1988, 15 Pages

OPERATOR(S): **Graham, C.F.**
AUTHOR(S): Cressy, G.F.
MINING DIV: Nicola
LOCATION: NTS 092I08W LAT. 50 17 56 LONG. 120 20 01
CLAIM(S): Sun 100
WORK DONE: DIAD 202.7 m 2 hole(s);NQ

GEOLOGY: The claim appears to be underlain by Upper Triassic Nicola Group volcanic rocks. Drilling failed to intersect a sulphide vein projection from outcrop.

Barn A.R. 17556 REPORT YEAR: 1988, 91 Pages, 6 Map(s)

OPERATOR(S): **Jaguar Equities**
AUTHOR(S): Roberts, A.F.
MINING DIV: Kamloops
LOCATION: NTS 092I09E LAT. 50 38 00 LONG. 120 07 00
CLAIM(S): Barn
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 361.8 m 6 hole(s);BQ - 2 Map(s); 1:10 000,1:800
EMGR 31.2 km;VLF - 2 Map(s); 1:2500
GEOL 576.0 ha - 1 Map(s); 1:12 000
LINE 21.6 km
MAGG 31.2 km - 1 Map(s); 1:2500

GEOLOGY: Tertiary Kamloops Group sedimentary rocks strike 120 degrees and dip 75 degrees north. Altered feldspar porphyry with completely kaolinized amygdules and argillite are evident. Upper Triassic Nicola Group rocks occur west of the drilling area. To the extreme south, outcrops consist of granite and biotite-feldspar and feldspar porphyry. The drilled area is highly brecciated with leaching and pyritic quartz-carbonate filled fractures.

MINFILE: 092INE126

Ajax A.R. 17198 REPORT YEAR: 1988, 68 Pages

OPERATOR(S): **Afton Operating**
AUTHOR(S): Bond, L.A.
MINING DIV: Kamloops
LOCATION: NTS 092I09W LAT. 50 36 33 LONG. 120 24 14
CLAIM(S): Wheal Tamar (L 2126)
EXPL. TARGET: Copper,Gold
WORK DONE: DIAD 3851.0 m 31 hole(s); NQ
SAMP 1400 sample(s);CU,AU,AG

GEOLOGY: The property is underlain by intrusive units of the Triassic Iron Mask Batholith to the north and Nicola Group volcanics to the south. Propylitic alteration and copper sulphide mineralization are associated with emplacement of the Sugarloaf hornblende diorite which intrudes the hybrid diorite unit. Work to date has outlined a large low grade copper-gold deposit.

RELATED A.R.: 16740
MINFILE: 092INE012

Ajax A.R. 17199 REPORT YEAR: 1988, 103 Pages

OPERATOR(S): **Afton Operating**
AUTHOR(S): Bond, L.A.
MINING DIV: Kamloops
LOCATION: NTS 092I09W LAT. 50 36 33 LONG. 120 24 14
CLAIM(S): Ajax (L.4710),Neptune (L.4712)
EXPL. TARGET: Copper,Gold
WORK DONE: DIAD 7608.0 m 56 hole(s); NQ
SAMP 2200 sample(s);CU,AU,AG

GEOLOGY: The property is underlain by intrusive units of the Triassic Iron Mask Batholith to the north and Nicola Group volcanics to the south. Propylitic alteration and copper sulphide mineralization are associated with emplacement of the Sugarloaf hornblende diorite which intrudes the Hybrid diorite unit. Work to date has outlined a large low grade copper-gold deposit.

RELATED A.R.: 16740
MINFILE: 092INE012

Ajax A.R. 16740 REPORT YEAR: 1987

OPERATOR(S): **Afton Operating**
AUTHOR(S): Bond, L.A.
MINING DIV: Kamloops
LOCATION: NTS 092I09W LAT. 50 36 33 LONG. 120 24 14
CLAIM(S): Lot 4710,Lot 4712,Ajax 100
WORK DONE: DIAD 11458.9 m 77 hole(s);NQ

SAMP 3500 sample(s);CU,AU,AG
GEOLOGY: The property, straddles the southern contact of the Iron Mask Batholith, a northwest trending, sub-volcanic intrusive complex. Intrusive rocks on the property itself represented primarily by the Hybrid and Sugarloaf units. Chalcopyrite is the predominant copper mineral and occurs as blebs and disseminations, in fractures, veinlets and microveinlets and occasionally in breccias and vugs with accompanying calcite.
RELATED A.R.: 00108, 00655, 04312, 05180, 05382, 05384, 06123, 06805

Ajax-Neptune A.R. 17965 REPORT YEAR: 1988, 22 Pages

OPERATOR(S): **Afton Operating**
AUTHOR(S): Bond, L.A.
MINING DIV: Kamloops
LOCATION: NTS 092I09W LAT. 50 36 30 LONG. 120 24 12
CLAIM(S): Ajax
EXPL. TARGET: Copper,Gold
WORK DONE: DIAD 236.2 m 1 hole(s);NQ
SAMP 71 sample(s);CU,AU
GEOLOGY: The property is underlain by intrusive units of the Triassic Iron Mask Batholith to the north and Nicola Group volcanics to the south. Propylitic alteration and copper sulphide mineralization are associated with emplacement of the Sugarloaf hornblende diorite which intrudes the hybrid diorite unit. Work to date has outlined a large low grade copper-gold deposit.
RELATED A.R.: 16740, 17198, 17199
MINFILE: 092INE012

Beer 1 A.R. 16979 REPORT YEAR: 1987, 17 Pages

OPERATOR(S): **Ovington, L.**
AUTHOR(S): Ovington, L. Elliott, B.
MINING DIV: Kamloops
LOCATION: NTS 092I09W LAT. 50 36 18 LONG. 120 15 48
CLAIM(S): Beer 1
EXPL. TARGET: Gold,Silver
WORK DONE: SOIL 65 sample(s);ME
GEOLOGY: The showing consists of a metre wide quartz-carbonate vein striking 285 degrees and dipping 40 to 50 degrees south. Vein mineralization includes pyrite, arsenopyrite, and very minor chalcopyrite. Host rocks are Cache Creek metasediments of Mississippian to Permian age, which are intruded by felsic rocks of the Upper Triassic Iron Mask and Wildhorse Mountain batholiths.
RELATED A.R.: 05877, 05878, 14585, 15348

CYA A.R. 17922 REPORT YEAR: 1988, 44 Pages, 2 Map(s)

OPERATOR(S): **Christoffersen, J.**
AUTHOR(S): Christoffersen, J.
MINING DIV: Kamloops
LOCATION: NTS 092I09W LAT. 50 36 00 LONG. 120 16 00
CLAIM(S): Beer 1,CYA 1-2
EXPL. TARGET: Gold,Arsenic
WORK DONE: GEOL 1000.0 ha - 1 Map(s); 1:5000
SOIL 680 sample(s);AU,AG,AS,BA,CD,CU,SB - 1 Map(s); 1:5000
GEOLOGY: The claims are underlain by Upper Triassic volcanic rocks of the Nicola Group lying between the Iron Mask batholith to the west and the Wild Horse batholith to the east. Nicola volcaniclastic rocks strike north-northwest and dip steeply everywhere on the property. The only known showing on the claims is a gold-bearing quartz vein, 0.5 to 1.8 metres wide, striking 285 degrees and dipping 35 degrees south. The gold is associated with much arsenopyrite and is exposed in a 6 metre deep shaft on the Beer 1 claim.
RELATED A.R.: 05877, 05878, 14585, 15348, 16979
MINFILE: 092INE102

Cid A.R. 17800 REPORT YEAR: 1988, 55 Pages

OPERATOR(S): **Afton Operating**
AUTHOR(S): Bond, L.A. Tsang, L.H.C.
MINING DIV: Kamloops
LOCATION: NTS 092I09W LAT. 50 39 52 LONG. 120 29 00
CLAIM(S): Cid 1-2,Winty (L.4667)
EXPL. TARGET: Copper,Gold
WORK DONE: DIAD 3321.1 m 27 hole(s);NQ
SAMP 1001 sample(s);CU,AU
GEOLOGY: The property is underlain by intrusive units of the Triassic Iron Mask Batholith. Propylitic alteration and copper sulphide mineralization are associated with intrusive breccia bodies cutting monzonites, diorites and latite porphyries of the Iron Mask Cherry Creek unit.
RELATED A.R.: 00060, 00141, 00192, 00727, 00879, 01011, 01677, 03554, 05180, 05998, 06209, 06268, 15713, 1577
MINFILE: 092INE026, 092INE030, 092INE074

Galaxy A.R. 17780 REPORT YEAR: 1988, 93 Pages, 11 Map(s)

OPERATOR(S): **Abermin**
AUTHOR(S): McArthur, G.F. McLaughlin, A.D.
MINING DIV: Kamloops
LOCATION: NTS 092I09W LAT. 50 37 27 LONG. 120 25 26
CLAIM(S): Gal,Venus 5,Venus 7-8,Rocket 4,Rocket 6-13,Rocket 15-16
EXPL. TARGET: Copper,Gold
WORK DONE: EMGR 26.0 km;VLF - 2 Map(s); 1:4800
IPOL 26.0 km - 6 Map(s); 1:4800,1:1696
LINE 26.5 km
MAGG 26.0 km - 3 Map(s); 1:4800
GEOLOGY: The property is underlain by the Triassic Iron Mask Batholith and coeval Upper Triassic Nicola Group volcanics. Well developed generally northwest trending fault zones have been the foci for copper +/- gold and silver mineralization. Three geophysical anomalies up to 500 by 200 metres have been defined, possibly representing sulphide mineralization.
RELATED A.R.: 11690

Hump A.R. 17799 REPORT YEAR: 1988, 8 Pages

OPERATOR(S): **Murphy, J.D.** Grave, C.
AUTHOR(S): Murphy, J.D.
MINING DIV: Kamloops
LOCATION: NTS 092I09W LAT. 50 35 00 LONG. 120 22 00
CLAIM(S): Hump
WORK DONE: EMGR 1.3 km;VLF
GEOLOGY: Two gold bearing structures occur in limy tuff and agglomerate of the Triassic Nicola Group volcanics which are in proximity to a small hornblende diorite intrusive related to the Iron Mask batholith. Neither zone responded to VLF survey methods.

RELATED A.R.: 08043, 09198, 10037, 14310, 16187

Makaoo A.R. 17120 REPORT YEAR: 1987, 53 Pages, 5 Map(s)

OPERATOR(S): **Int. Makaoo Kestrel Res.**
AUTHOR(S): Pegg, R.
MINING DIV: Kamloops
LOCATION: NTS 092I09W LAT. 50 38 30 LONG. 120 23 30
CLAIM(S): Copperhead,Python,Python 16 Fr.
EXPL. TARGET: Copper,Gold
WORK DONE: GEOL 2.0 ha;UNDV - 1 Map(s); 1:250
ROCK 310 sample(s);CU,AU,PD,PT - 4 Map(s); 1:250
GEOLOGY: The property is located on the northeast margin of the Triassic Iron Mask Batholith, which is a multi-phase intrusion ranging from gabbro to syenite in composition. Copper mineralization (+gold+/-lead) in two separate structurally related zones were investigated. The Copperhead zone corresponds to a sheared, west dipping, picrite-diorite contact where 91,750 tonnes of 1.13 per cent copper were previously outlined. The Python zone corresponds to a southwest plunging norite breccia pipe where 219,700 tonnes of 1.11 per cent copper were previously outlined.
MINFILE: 092INE002

Makaoo A.R. 17946 REPORT YEAR: 1988, 199 Pages, 2 Map(s)

OPERATOR(S): **BP Res. Can.**
AUTHOR(S): Pegg, R.
MINING DIV: Kamloops
LOCATION: NTS 092I09W LAT. 50 38 00 LONG. 120 22 00
CLAIM(S): Plane 18 Fr.,Plane 19 Fr.,Jet 6,Jet 7 Fr.,Jet 10,Regina 1 Fr.,Python,Lost Chord,Copperhead, Noonday,Pye 3,Pye 6 Fr.,Python 2-3,Python 8 Fr.,Python 15
EXPL. TARGET: Copper,Gold,Palladium
WORK DONE: GEOL 1800.0 ha - 2 Map(s); 1:5000
LINE 5.8 km
ROCK 184 sample(s);ME
SAMP 336 sample(s);ME
SOIL 210 sample(s);ME
TOPO 1800.0 ha
GEOLOGY: The property is located on the north-east margin of the Triassic Iron Mask batholith, which is a multi-phase intrusion ranging from gabbro to syenite in composition. Copper mineralizerion (+gold+/-lead) is found along a sheared, west dipping pyrite-diorite contact. Two previously outlined zones, Copperhead and Noonday, contain 91 750 tonnes of 1.13 per cent copper and 600 000 tonnes of 0.74 per cent copper, respectively. Porphyry copper-type mineralization is found in the southern part of the property.
MINFILE: 092INE002, 092INE004, 092INE005

Mara A.R. 17338 REPORT YEAR: 1988, 382 Pages, 4 Map(s)

OPERATOR(S): **OPX Min.**
AUTHOR(S): Gourlay, A.W.
MINING DIV: Kamloops
LOCATION: NTS 092I09W, 092I16W LAT. 50 44 37 LONG. 120 25 53
CLAIM(S): Bas 1-2,Kam,Mara II,Mara 4-6
WORK DONE: EMGR 126.0 km;VLF - 1 Map(s); 1:10 000
IPOL 8.0 km
MAGG 126.0 km - 1 Map(s); 1:10 000
PERD 1481.2 m 17 hole(s) - 1 Map(s); 1:10 000,1:480
ROCK 36 sample(s);ME - 1 Map(s); 1:10 000
SAMP 467 sample(s);ME
SOIL 316 sample(s);AU,AG,AS,BI,MO,SB,SE
GEOLOGY: Flat-lying Eocene tuffs and sediments have undergone silicification and alteration adjacent to faults controlling grabens and horsts.
RELATED A.R.: 12615, 13959, 16410

Rainbow A.R. 17601 REPORT YEAR: 1987, 20 Pages, 14 Map(s)

OPERATOR(S): **Seadrift Int. Ex.**
AUTHOR(S): Lloyd, J.
MINING DIV: Kamloops
LOCATION: NTS 092I09W LAT. 50 39 00 LONG. 120 28 00
CLAIM(S): Rainbow NW,Rainbow NE
EXPL. TARGET: Copper,Molybdenum/Molybdenite
WORK DONE: IPOL 16.4 km - 14 Map(s); 1:3000
GEOLOGY: The property is underlain by Upper Triassic Nicola Group volcanics and the Iron Mask Batholith and associated units, which have been intruded by younger Sugarloaf and Cherry Creek rocks. The induced polarization survey located three anomalous zones.
RELATED A.R.: 05165

Reg-Byr A.R. 17502 REPORT YEAR: 1988, 20 Pages

OPERATOR(S): **Afton Operating**
AUTHOR(S): Bond, L.A.
MINING DIV: Kamloops
LOCATION: NTS 092I09W LAT. 50 34 30 LONG. 120 20 30
CLAIM(S): Sunny
EXPL. TARGET: Gold,Copper
WORK DONE: PERD 213.4 m 2 hole(s);98mm
GEOLOGY: The property is underlain by intrusive units of the Triassic Iron Mask Batholith to the east and north and Nicola Group volcanics to the west and south. Propylitization, albitization and weak chalcopyrite mineralization are associated with younger diorite phases of the batholith.
RELATED A.R.: 08028, 10552, 12419, 14970

Wheal Tamar A.R. 17964 REPORT YEAR: 1988, 22 Pages

OPERATOR(S): **Afton Operating**
AUTHOR(S): Bond, L.A.
MINING DIV: Kamloops
LOCATION: NTS 092I09W LAT. 50 36 42 LONG. 120 23 06
CLAIM(S): Wheal Tamar
EXPL. TARGET: Copper,Gold
WORK DONE: DIAD 151.2 m 1 hole(s);NQ
SAMP 49 sample(s);CU,AU
GEOLOGY: The property is underlain by intrusive units of the Triassic Iron Mask Batholith to the north and Nicola Group volcanics to the south. Propylitic alteration and copper sulphide mineralization are associated with emplacement of the Sugarloaf hornblende diorite which intrudes the hybrid diorite unit. Work to date has outlined a large low grade copper-gold deposit.
MINFILE: 092INE013

Beaton A.R. 17788 REPORT YEAR: 1988, 26 Pages, 2 Map(s)

OPERATOR(S): **Boitard, C.**
AUTHOR(S): LaRue, J.P.
MINING DIV: Kamloops
LOCATION: NTS 092I10E LAT. 50 40 00 LONG. 120 36 30
CLAIM(S): Beaton 2
EXPL. TARGET: Copper
WORK DONE: LINE 17.0 km
PROS 400.0 ha - 2 Map(s); 1:5000
GEOLOGY: The claim area is underlain by Nicola volcanic rocks of Triassic age and Kamloops Group volcanics of Tertiary age. These rocks have potential for copper mineralization.

Cedars A.R. 17869 REPORT YEAR: 1988, 34 Pages

OPERATOR(S): **Salor Scientific**
AUTHOR(S): Murphy, J.D.
MINING DIV: Kamloops
LOCATION: NTS 092I10E LAT. 50 42 00 LONG. 120 33 25
CLAIM(S): Cedars,Na2
EXPL. TARGET: Sodium Sulphate
WORK DONE: SAMP 19 sample(s);NA,SO
GEOLOGY: A sodium sulphate deposit is located in a southeast trending basin on faulted contact between intrusive rocks of the Triassic Cherry Creek pluton to north and volcanic flow rocks and breccia of Eocene Kamloops Group to south. The composition of the Cherry Creek pluton varies from diorite to syenite, including breccia and porphyry. The salt deposit is in a small lake bed about 550 metres long and 100 metres wide.
MINFILE: 092INE076

GS A.R. 17550 REPORT YEAR: 1988, 38 Pages, 5 Map(s)

OPERATOR(S): **Teck Ex.**
AUTHOR(S): Lovang, G.
MINING DIV: Kamloops
LOCATION: NTS 092I10E LAT. 50 36 11 LONG. 120 39 18
CLAIM(S): GS
EXPL. TARGET: Copper,Gold
WORK DONE: EMGR 41.0 km;VLF - 3 Map(s); 1:5000
MAGG 26.0 km - 1 Map(s); 1:5000
SOIL 596 sample(s);CU,AU - 1 Map(s); 1:5000
GEOLOGY: Upper Triassic Nicola Group volcanic rocks are intruded by Jurassic diorite and small bodies of monzonite. Magnetite occurs in the diorite as disseminations and as stringers. Traces of copper mineralization occur in the diorite and in contact zones.

Getty A.R. 17974 REPORT YEAR: 1988, 34 Pages

OPERATOR(S): **Robak Ind.**
AUTHOR(S): Gower, S.C.
MINING DIV: Kamloops
LOCATION: NTS 092I10E LAT. 50 34 12 LONG. 120 59 54
CLAIM(S): Getty 1-24,Getty A Fr.
EXPL. TARGET: Copper,Molybdenum/Molybdenite,Gold,Silver
WORK DONE: META
GEOLOGY: Chalcopyrite, bornite and molybdenite occur mainly as disseminations and fracture fillings within quartz diorite, breccia zones and near the shattered margins of an intrusive porphyry. An extensive zone of oxidation caps the northwestern portion of the mineral zone. In plan, the north sulphide zone is triangular with the known apex to the southeast. The oxide zone is thickest over the centre of the copper zone. The mineralization occurs in a generally north trending zone over a strike length of 1524 metres an average width of 305 and has been traced to a depth in excess of 457 metres.
RELATED A.R.: 05540, 15205
MINFILE: 092INE038

M&R A.R. 18082 REPORT YEAR: 1988, 33 Pages, 2 Map(s)

OPERATOR(S): **Afton Operating**
AUTHOR(S): Bond, L.A.
MINING DIV: Kamloops
LOCATION: NTS 092I10E LAT. 50 31 00 LONG. 120 32 00
CLAIM(S): M&R 1-4
EXPL. TARGET: Copper,Gold
WORK DONE: PERD 233.1 m 3 hole(s) - 1 Map(s); 1:10 000
SAMP 71 sample(s);CU,AU
SOIL 248 sample(s);CU,AU - 1 Map(s); 1:10 000
GEOLOGY: The claims cover a poorly exposed Triassic alkaline stock within Nicola Group volcanic and sedimentary rocks. Pyrite and weak chalcopyrite mineralization occurs peripheral to the stock, within Nicola Group rocks and within the intrusive, accompanied by varying degrees of propylitic alteration.
MINFILE: 092INE167

Rag A.R. 17669 REPORT YEAR: 1988, 29 Pages, 1 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Elliott, I.L.
MINING DIV: Kamloops
LOCATION: NTS 092I10E LAT. 50 37 07 LONG. 120 40 07
CLAIM(S): Rag 1-3,Rag 19-20,Rag 24-30
EXPL. TARGET: Copper,Molybdenum/Molybdenite,Gold
WORK DONE: SOIL 619 sample(s) - 1 Map(s); 1:2000
GEOLOGY: An Early Cretaceous diorite-monzonite stock intrudes Upper Triassic Nicola Group intermediate volcanics that are in part overlain by Tertiary mafic volcanics.
RELATED A.R.: 02511, 03713, 04008, 05673, 07337, 08238
MINFILE: 092INE045

Red Hill A.R. 17263 REPORT YEAR: 1988, 80 Pages

OPERATOR(S): **Rea Gold**
AUTHOR(S): Leishman, D.A.
MINING DIV: Kamloops
LOCATION: NTS 092I11W LAT. 50 38 44 LONG. 121 21 46
CLAIM(S): Add 1,Add 8,Add V,Moly,Moly 2
EXPL. TARGET: Copper,Molybdenum/Molybdenite,Silver
WORK DONE: ROTD 1835.7 m 9 hole(s)
SAMP 467 sample(s);AU,CU,ZN,MO,AG
GEOLOGY: Minor chalcopyrite and secondary copper mineralization are hosted by either metavolcanic rocks which are intruded by subvolcanic calc-alkaline stocks or chert horizons intravolcanic with an andesitic flow

and breccia sequence, all of the Upper Triassic Nicola Group. Sericitization and pyritization are common with the former and low grade chloritization with the latter.
MINFILE: 092INW042

Tom A.R. 16963 REPORT YEAR: 1987, 44 Pages

OPERATOR(S): **Searchlight Res.**
AUTHOR(S): Dasler, P.G.
MINING DIV: Kamloops
LOCATION: NTS 092I11W LAT. 50 33 45 LONG. 121 18 18
CLAIM(S): Tom 1,Tom 3
EXPL. TARGET: Gypsum,Gold,Silver,Copper,Lead,Zinc
WORK DONE: GEOL 0.1 ha
PETR 5 sample(s)
ROAD 0.8 km
ROCK 11 sample(s);ME
GEOLOGY: Intense acid sulphate alteration of postulated Eocene age is apparent from sparse outcrop alongside the Trans Canada Highway. Gypsum veining is common within and crosscutting the Jurassic volcaniclastic sequence. The main exposures (north and south showings) are within 250 metres of the highway and are exposed over a 200 by 300 metre area.
MINFILE: 092INW054

Spray A.R. 18160 REPORT YEAR: 1988, 247 Pages, 5 Map(s)

OPERATOR(S): **Kerr Addison Mines**
AUTHOR(S): Grexton, P.L. Bruland, T.
MINING DIV: Lillooet
LOCATION: NTS 092I12W LAT. 50 35 00 LONG. 121 55 00
CLAIM(S): Brew 1-2,Foam 3,Home 1-2,Free 1-2
EXPL. TARGET: Gold,Molybdenum/Molybdenite
WORK DONE: DIAD 746.9 m 5 hole(s);NDB
GEOL 3250.0 ha - 1 Map(s); 1:20 000
HMIN 23 sample(s);AU,ME
ROCK 106 sample(s);AU,ME - 4 Map(s); 1:20 000
SAMP 729 sample(s);AU,ME
GEOLOGY: The property is underlain by a structurally bedded sequence of Jurassic and Cretaceous Relay Mountain Group metasedimentary rocks with lesser Permian and Jurassic Bridge River Group metasediments and metavolcanics which have been intruded locally by Cretaceous to Tertiary felsic altered tonalite sills and dykes.
MINFILE: 092INW090

Trac A.R. 17704 REPORT YEAR: 1988, 27 Pages, 2 Map(s)

OPERATOR(S): **MacDonald, A.J.**
AUTHOR(S): Ziebart, P.
MINING DIV: Kamloops
LOCATION: NTS 092I13E, 092I14W LAT. 50 49 42 LONG. 121 29 38
CLAIM(S): Trac 1-4
EXPL. TARGET: Gold
WORK DONE: HMIN 10 sample(s);ME - 1 Map(s); 1:5000
ROCK 16 sample(s);ME - 1 Map(s); 1:5000
SILT 11 sample(s);ME
GEOLOGY: The claims are located in the southern half of a 7 by 30 kilometre graben and are underlain by Cretaceous chert-pebble conglomerates as well as a Tertiary rhyolite body about 2 kilometres in diameter.

Pavilion A.R. 16827 REPORT YEAR: 1987, 39 Pages, 1 Map(s)

OPERATOR(S): **Ashworth Ex.**
AUTHOR(S): Leriche, P.D.
MINING DIV: Clinton
LOCATION: NTS 092I13W LAT. 50 57 13 LONG. 121 51 47
CLAIM(S): Two Dog,Cav
EXPL. TARGET: Gold,Copper,Zinc
WORK DONE: ROCK 50 sample(s);ME - 1 Map(s); 1:10 000
GEOLOGY: Permian-Pennsylvanian Cache Creek Group sediments and volcanics are intruded by a Cretaceous diorite pluton. The Fraser River fault system has created a northwest trending fracture system that is infilled with quartz. These quartz veins average 1.0 metres wide and carry gold values up to 34.3 grams per tonne.

Census A.R. 17787 REPORT YEAR: 1988, 31 Pages, 1 Map(s)

OPERATOR(S): **Can. Imperial Mines**
AUTHOR(S): Leriche, P.D. Yacoub, F.F.
MINING DIV: Kamloops
LOCATION: NTS 092I14W LAT. 50 56 00 LONG. 121 25 00
CLAIM(S): Census,JMI II-III
EXPL. TARGET: Chromium/Chromite,Platinum,Gold,Nickel
WORK DONE: GEOL 125.0 ha - 1 Map(s); 1:5000
ROCK 25 sample(s);ME
GEOLOGY: The underlying rocks are composed of Late Permian to Late Triassic chert/argillite matrix surrounding blocks of Pennsylvanian and Early Permian carbonate, plus chert, basalt and ultramafic rocks of unknown age.

Plat A.R. 18067 REPORT YEAR: 1988, 35 Pages, 2 Map(s)

OPERATOR(S): **Ashworth Ex.**
AUTHOR(S): Leriche, P.D. Yacoub, F.F.
MINING DIV: Kamloops
LOCATION: NTS 092I14W, 092P03W LAT. 51 00 00 LONG. 121 22 00
CLAIM(S): Plat III-IV
EXPL. TARGET: Chromium/Chromite,Platinum
WORK DONE: GEOL 1000.0 ha - 1 Map(s); 1:10 000
ROCK 17 sample(s);AU,ME
SOIL 112 sample(s);AU,ME - 1 Map(s); 1:2000
GEOLOGY: The property is underlain by Pennsylvanian to Triassic Cache Creek Group volcaniclastic rocks with minor basalt, which are overlain by Eocene Kamloops Group volcanic flows and agglomeritic tuffs. Anomalous cromium and nickel values confirm the presence of ultramafic rocks on the claim group which may host platinum group minerals.

Darcy A.R. 17413 REPORT YEAR: 1988, 85 Pages, 3 Map(s)

OPERATOR(S): **Pass Lake Res.**
AUTHOR(S): Dom, K.
MINING DIV: Kamloops
LOCATION: NTS 092I15E, 092I16W LAT. 50 52 30 LONG. 120 30 05
CLAIM(S): Darcy 1-4,Pass 1,Dawn 1
EXPL. TARGET: Gold,Silver

WORK DONE: DIAD 3 hole(s);NQ - 3 Map(s);
HMIN 14 sample(s);ME
ROAD 1.3 km
SOIL 428 sample(s);ME
GEOLOGY: A picrite intrusive body is cut by a later northwest trending hornblende-feldspar porphyry. Weak quartz and carbonate stringers and stockwork veins and intermittent quartz-carbonate alteration zones carry anomalous gold values.

MINFILE: 092INE167

James A.R. 16832 REPORT YEAR: 1987, 17 Pages

OPERATOR(S): **Ampac Petr. Res.**
AUTHOR(S): Jorgensen, N.B.
MINING DIV: Kamloops
LOCATION: NTS 092I15E LAT. 50 48 22 LONG. 120 43 49
CLAIM(S): James
EXPL. TARGET: Copper,Silver
WORK DONE: GEOL 17.0 ha
SOIL 65 sample(s);CU,AG
GEOLOGY: Upper Triassic Nicola Group augite porphyry and related rocks are present along the western claim boundary. The remainder of the property is underlain by basalt, andesite and basaltic tuff belonging to the Tertiary Kamloops Group. No mineralization or alteration is present.

Criss A.R. 16819 REPORT YEAR: 1987, 20 Pages, 5 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Shevchenko, G.
MINING DIV: Kamloops
LOCATION: NTS 092I15W LAT. 50 54 53 LONG. 120 55 03
CLAIM(S): Criss 1-2
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 170.0 ha - 1 Map(s); 1:5000
LINE 15.0 km
SOIL 368 sample(s);AU,AS,CD,SB - 4 Map(s); 1:5000
GEOLOGY: Steeply dipping, northwest trending Upper Triassic Nicola Group volcanics and sediments are partly covered by Miocene olivine basalts. Narrow northwest shears host clay altered quartz-carbonate breccias which are known to carry cinnabar and stibnite mineralization. The area represents a favourable environment for epithermal type gold-silver mineralization.

Deadman A.R. 17143 REPORT YEAR: 1988, 127 Pages

OPERATOR(S): **Stetson Res. Management**
AUTHOR(S): Freeze, J.C.
MINING DIV: Kamloops
LOCATION: NTS 092I15W LAT. 50 54 52 LONG. 120 57 25
CLAIM(S): Cayuse,Cayuse 2,Goldgiant 1,G.I. Joey 1-2
EXPL. TARGET: Antimony,Mercury
WORK DONE: GEOL 250.0 ha
HMIN 19 sample(s);CU,AG,NI,AS,SB,AU
ROCK 26 sample(s);CU,AG,NI,AS,SB,AU
SOIL 1453 sample(s);CU,AG,NI,AS,SB,AU
GEOLOGY: Triassic Nicola volcanic rocks are overlain by Cretaceous sedimentary rocks, and intruded by Upper Cretaceous igneous rocks. Cinnabar, stibnite, pyrite and sphalerite occur in quartz-carbonate veins, stockwork zones and breccias.
RELATED A.R.: 11477, 12288, 15227, 16819
MINFILE: 092INE063

Kam-Jeff A.R. 17403 REPORT YEAR: 1988, 70 Pages, 2 Map(s)

OPERATOR(S): **Emerald Star Min. Ex.**
AUTHOR(S): Thompson, W.H.
MINING DIV: Kamloops
LOCATION: NTS 092I15W LAT. 50 47 33 LONG. 120 48 04
CLAIM(S): Kam 15,Kam 22,Jeff 5-6
EXPL. TARGET: Mercury,Silver,Gold,Copper,Barium/Barite
WORK DONE: DIAD 341.7 m 2 hole(s);BQ
PERD 940.3 m 10 hole(s) - 2 Map(s); 1:2500
SAMP 237 sample(s);AU,AG,HG
GEOLOGY: Upper Triassic Nicola Group volcanics and sediments are intruded by serpentinized ultramafic rocks along regional northwest trending faults. Alteration zones (carbonate, silica) are thought to be signs of epithermal systems. Drilling indicates strong mercury mineralization associated with some weak silver values in one zone. Cinnabar, chalcopyrite, barite and some chalcedonic silica occurs.
MINFILE: 092INE059

LC A.R. 17415 REPORT YEAR: 1988, 17 Pages, 1 Map(s)

OPERATOR(S): **Minnova**
AUTHOR(S): Evans, G.W.
MINING DIV: Kamloops
LOCATION: NTS 092I15W LAT. 50 54 00 LONG. 120 57 30
CLAIM(S): LC 5
EXPL. TARGET: Copper,Silver,Mercury
WORK DONE: SOIL 87 sample(s);ME - 1 Map(s);
GEOLOGY: A large graben structure, forming the Deadman Valley, consists of Tertiary basalts, rhyolites and sediments. The basement rocks are Triassic alkaline Nicola volcanics. Silicification and propylytic alteration carry values in copper, silver and mercury.

LC A.R. 17416 REPORT YEAR: 1988, 23 Pages, 1 Map(s)

OPERATOR(S): **Minnova**
AUTHOR(S): Evans, G.W.
MINING DIV: Kamloops
LOCATION: NTS 092I15W LAT. 50 56 30 LONG. 120 55 00
CLAIM(S): LC 1-4
EXPL. TARGET: Copper,Silver,Gold,Mercury
WORK DONE: ROCK 13 sample(s);ME
SOIL 204 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: The area is underlain by Nicola Group volcanics with a Tertiary conglomerate forming a basin on the east side of the property. Northwest trending structures host propylytic and argillic alteration with some silicification.
MINFILE: 092INE062

Hawk A.R. 17803 REPORT YEAR: 1988, 19 Pages, 1 Map(s)

OPERATOR(S): **Redbird Gold**
AUTHOR(S): Roed, M.A.

MINING DIV: Kamloops
LOCATION: NTS 092I16E LAT. 50 48 13 LONG. 120 03 35
CLAIM(S): Hawk 5-8
EXPL. TARGET: Gold
WORK DONE: GEOL 1650.0 ha - 1 Map(s); 1:12 000
ROCK 26 sample(s);AU,PT,PD
GEOLOGY: A northerly trending, steeply dipping series of limestone, pyritic basalt, argillite, greenstone, andesite and clastic sediments of the Permo-Pennsylvanian Cache Creek Group are intruded by hornblendite of Jurassic age.

Hawk A.R. 17147 REPORT YEAR: 1988, 44 Pages, 2 Map(s)

OPERATOR(S): **Redbird Gold**
AUTHOR(S): Roed, M.A.
MINING DIV: Kamloops
LOCATION: NTS 092I16E LAT. 50 50 00 LONG. 120 02 00
CLAIM(S): Hawk 1-4
EXPL. TARGET: Gold,Copper,Silver
WORK DONE: GEOL 1000.0 ha - 1 Map(s); 1:12 000,1:4000
LINE 7.5 km
MAGG 5.0 km - 1 Map(s); 1:2500
ROCK 28 sample(s);AU,AG
SOIL 260 sample(s);AU
GEOLOGY: Skarn has developed in Permian Cache Creek limestone and mafic volcanic rocks, which are intruded or in fault contact with diorite of Jurassic age. The contact zone and sediments strike northerly and dip steeply, whereas slightly auriferous quartz veins in diorite trend northeasterly and dip to the east.

Lolo A.R. 17121 REPORT YEAR: 1988, 46 Pages, 8 Map(s)

OPERATOR(S): **Asamera**
AUTHOR(S): McCarthy, P.D.
MINING DIV: Kamloops
LOCATION: NTS 092I16E LAT. 50 48 16 LONG. 120 07 24
CLAIM(S): Lolo I-VI,Lolo VIII,Lolo IX
EXPL. TARGET: Gold,Platinum,Palladium,Silver
WORK DONE: ROCK 29 sample(s);ME - 2 Map(s); 1:10 000
SILT 18 sample(s);ME - 3 Map(s); 1:10 000
SOIL 152 sample(s);ME - 3 Map(s); 1:10 000
GEOLOGY: Two Late Triassic syenitic intrusive stocks intrude through Late Paleozoic phyllite, volcaniclastics and limestone of the Harper Ranch Group, altering the sediments to hornfels at the intrusive contacts. Minor amounts of galena, sphalerite, molybdenite and pyrite were found in quartz veins and stringers in the metasediments near the intrusive contacts and within the syenite bodies.
MINFILE: 092INE155, 092INE164

Morgan A.R. 17074 REPORT YEAR: 1987, 44 Pages, 4 Map(s)

OPERATOR(S): **Callex Ent.**
AUTHOR(S): Poloni, J.R. Hainsworth, W.
MINING DIV: Kamloops
LOCATION: NTS 092I16E LAT. 50 54 00 LONG. 120 01 00
CLAIM(S): Morgan
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: EMGR 4.0 km; VLF
ROCK 18 sample(s);AG,AS,CU,PB,ZN,SB,AU
SOIL 86 sample(s);AG,AS,CU,PB,ZN,SB,AU - 4 Map(s); 1:1250
GEOLOGY: Metamorphosed Permian Cache Creek sedimentary rocks are interbedded with volcanic greenstones. The trend is north-northwesterly. Local mineralization within quartz veins consist mainly of pyrite and some sulphides of copper, lead, zinc, and precious metal values.
MINFILE: 092INE110

Bonaparte A.R. 17086 REPORT YEAR: 1988, 336 Pages, 16 Map(s)

OPERATOR(S): **Inter-Pacific Res. Gallant Gold Mines Gabriel Res.**
AUTHOR(S): McClintock, J.A. Gourlay, A.W.
MINING DIV: Kamloops
LOCATION: NTS 092I16W, 092P01W, 092P02E LAT. 51 00 30 LONG. 120 26 43
CLAIM(S): Bob 21-24,Bob 33,Bob 39-43,Bob 45-48,Bob 102-104,Bob 107-112,Bob 115,Bob 119,Bob 231-232, Bob 234,Bob 341,Stu 1-2
EXPL. TARGET: Gold
WORK DONE: EMGR 41.6 km;VLF
GEOL 5000.0 ha - 8 Map(s); 1:25 000,1:10 000,1:5000,1:2500
HMIN 13 sample(s);AU
MAGG 65.6 km - 1 Map(s); 1:10 000,1:5000
ROCK 170 sample(s);AU
SOIL 2350 sample(s);CU,AG,AU - 7 Map(s); 1:2500
GEOLOGY: Argillaceous metasedimentary rocks, metamorphosed volcanic rocks and bedded greywacke and arkose form the basement rocks. The argillaceous metasedimentary rocks have been intruded by hornblende diorite correlated with Thuya-Takomkane Batholith intrusions resulting in hornfelsed contact zones. Basalt-andesite lavas, breccias and tuffs form the high ground. The hornblende diorite has been cut by late stage quartz veins that carry pyrite, chalcopyrite and rarely geochemically anomalous gold.
RELATED A.R.: 13908, 15166, 15651, 15757, 16045
MINFILE: 092P 050, 092P 159

WK A.R. 17073 REPORT YEAR: 1988, 21 Pages

OPERATOR(S): **Callex Ent.**
AUTHOR(S): Hainsworth, W.
MINING DIV: Kamloops
LOCATION: NTS 092I16W LAT. 50 53 00 LONG. 120 19 00
CLAIM(S): WK
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 3.3 km; VLF
GEOLOGY: Paleozoic Cache Creek Formation argillites, quartzites, limestones, breccias and greenstones are in contact with small bodies of the Coast Intrusives. Mineral showings consist of quartz veins containing pyrite, galena, sphalerite, arsenopyrite, pyrrhotite and values in gold and silver.
RELATED A.R.: 13544
MINFILE: 092INE089, 092INE090

Cataract A.R. 18185 REPORT YEAR: 1988, 25 Pages, 1 Map(s)

OPERATOR(S): **Ruanco Ent.**
AUTHOR(S): Richards, G.R.
MINING DIV: Kamloops
LOCATION: NTS 092J01E LAT. 50 08 00 LONG. 122 08 00
CLAIM(S): Cataract 3
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper,Molybdenum/Molybdenite
WORK DONE: SOIL 55 sample(s);AU - 1 Map(s); 1:5000
GEOLOGY: Tertiary andesite and rhyolite pyroclastics resting unconformably on plutonic and metasedimentary rocks have been intruded by younger granitic stocks. Two porphyry molybdenum +/- copper systems are present as well as a precious and base metals system associated with several types of breccia zones. Drill intercept include 2.8 grams per tonne gold over 1.5 metres and 3.6 grams per tonne gold over 3 metres and .64 grams per tonne gold over 3.7 metres.
RELATED A.R.: 09791, 10689, 10908, 11559
MINFILE: 092JSE028

Sue A.R. 17961 REPORT YEAR: 1988, 156 Pages, 6 Map(s)

OPERATOR(S): **Decade Int. Dev.**
AUTHOR(S): Jones, H.M.
MINING DIV: Vancouver
LOCATION: NTS 092J02W LAT. 50 14 00 LONG. 122 58 00
CLAIM(S): Sue 1-6
EXPL. TARGET: Copper,Zinc,Cobalt
WORK DONE: EMGR 29.2 km;UTEM,VLF - 2 Map(s); 1:5000
GEOL 1000.0 ha - 1 Map(s); 1:5000
LINE 24.5 km
ROCK 24 sample(s);ME
SOIL 896 sample(s);ME - 3 Map(s); 1:5000
GEOLOGY: The claims are underlain by a pendant of Lower Gambier Group volcanic and sedimentary rocks in the Coast Range Plutonic Complex. The area explored includes a package of volcanic pyroclastic rocks ranging from rhyolitic to andesitic in composition. They include tuffs, lapilli tuffs and volcanic breccias.

The rhyolitic and dacitic rocks are strongly fractured and faulted along bedding(?) and well mineralized with fine disseminated pyrite, minor disseminated sphalerite was seen in one location.
RELATED A.R.: 13951
MINFILE: 092JSE025

C3A A.R. 17063 REPORT YEAR: 1987, 13 Pages

OPERATOR(S): **Cukor, D.**
AUTHOR(S): Cukor, D.
MINING DIV: Vancouver
LOCATION: NTS 092J03E LAT. 50 06 22 LONG. 123 02 22
CLAIM(S): C3A
EXPL. TARGET: Molybdenum/Molybdenite,Copper
WORK DONE: PROS 300.0 ha
ROCK 28 sample(s);AU,AG
GEOLOGY: The claim is underlain by quartz diorite of undetermined age. Alteration includes chloritization, epidotization, silicification and quartz veining. Mineralization consists of small molybdenum showings with minor chalcopyrite-pyrite showings.
MINFILE: 092JW 002

Callaghan A.R. 16893 REPORT YEAR: 1987, 160 Pages, 29 Map(s)

OPERATOR(S): **Kidd Creek Mines**
AUTHOR(S): Hendrickson, G.A. McConnell, T.C.
MINING DIV: Vancouver
LOCATION: NTS 092J03E LAT. 50 07 17 LONG. 123 07 27
CLAIM(S): Edna 1-2,Edna 4,Alex 1-2,Callaghan 3
EXPL. TARGET: Copper,Lead,Zinc
WORK DONE: EMAB 45.5 km;HLEM,VLF - 3 Map(s); 1:10 000
EMGR 11.0 km;VLF - 4 Map(s); 1:2000
IPOL 11.0 km - 10 Map(s); 1:2000
LINE 11.0 km
MAGA 45.5 km - 2 Map(s); 1:10 000
MAGG 11.0 km - 9 Map(s); 1:2000
TOPO 4000.0 ha - 1 Map(s); 1:5000
GEOLOGY: The claims are underlain by a pendant of Lower Cretaceous volcaniclastic rocks belonging to the Gambier Group. The pendant occurs within the Upper Cretaceous Coast Plutonic Complex. The volcanic and sedimentary succession of Gambier Group rocks strikes about 156 degrees and dips steeply to the southwest. The rocks were found to be strongly altered to unaltered. Alteration is mainly alkali and alkali earth metasomatism and is related to contact metamorphism by the Coast Plutonic Complex and regional greenschist metamorphism. No significant mineralization was observed on the property.

Discovery A.R. 17851 REPORT YEAR: 1988, 53 Pages, 7 Map(s)

OPERATOR(S): **Hadley Res.**
AUTHOR(S): Christopher, P.A.
MINING DIV: Vancouver
LOCATION: NTS 092J03E LAT. 50 06 00 LONG. 123 08 00
CLAIM(S): Discovery I-II,Discovery IV
WORK DONE: EMGR 25.0 km;VLF - 2 Map(s); 1:2500
GEOL 200.0 ha - 1 Map(s); 1:5000
LINE 27.0 km
MAGG 25.0 km - 1 Map(s); 1:2500
ROCK 48 sample(s);ME
SOIL 568 sample(s);ME - 3 Map(s); 1:5000
GEOLOGY: The property is underlain by doritic units of the Coast Plutonic Complex which host roof pendant of metavolcanic and related metasedimentary rocks. Northwest trending structures appear to localize Tertiary basalts which occur along Callaghan Creek valley.
RELATED A.R.: 16443
MINFILE: 092J

Helpful A.R. 17065 REPORT YEAR: 1988, 29 Pages, 1 Map(s)

OPERATOR(S): **Cuttle, J.F.**
AUTHOR(S): Cuttle, J.F.
MINING DIV: Vancouver
LOCATION: NTS 092J03E LAT. 50 02 00 LONG. 123 05 54
CLAIM(S): Helpful
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper

WORK DONE: GEOL 500.0 ha - 1 Map(s); 1:5000
ROCK 33 sample(s);AU,AG,AS,CU,PB,ZN

GEOLOGY: The claim isolates a north-northwesterly trending sheared contact between Lower Cretaceous Gambier Group(?) volcanics and Cretaceous and Tertiary Coast Plutonic Complex quartz diorite. The sheared contact is highly siliceous and contains mineralized concordant and discordant quartz veins. Overlying an area of the claim are Garibaldi Formation basalt flows.

MINFILE: 092JW

Marble A.R. 17079 REPORT YEAR: 1988, 62 Pages

OPERATOR(S): **Cuttle, J.F.**
AUTHOR(S): Cuttle, J.F.
MINING DIV: Vancouver
LOCATION: NTS 092J03E LAT. 50 01 04 LONG. 123 06 06
CLAIM(S): Marble 1
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: EMGR 3.5 km;VLF
REST 3.0 km
ROCK 85 sample(s);AU,AG,PB,ZN,CU

GEOLOGY: The claims are underlain by a north-northwesterly trending sheared contact between Lower Cretaceous Gambier Group(?) volcanics and Cretaceous and Tertiary Coast Plutonic Complex quartz diorite. Overlying an area of the claim are Garibaldi Formation basalt flows. The sheared contact is highly altered and contains mineralized concordant and discordant quartz veins.

Northair A.R. 17092 REPORT YEAR: 1988, 1136 Pages, 96 Map(s)

OPERATOR(S): **Falconbridge**
AUTHOR(S): Clemmer, S.G. Hendrickson, G.A.
MINING DIV: Vancouver
LOCATION: NTS 092J03E LAT. 50 07 35 LONG. 123 05 33
CLAIM(S): Northair 1-6,Rose
EXPL. TARGET: Gold,Silver,Zinc,Lead,Copper
WORK DONE: EMGR 40.4 km;VLF - 14 Map(s); 1:2000
GEOL 2500.0 ha - 11 Map(s); 1:5000,1:2000
IPOL 40.4 km - 30 Map(s); 1:2000
LINE 26.3 km
MAGG 40.4 km - 27 Map(s); 1:2000
PETR 33 sample(s)
ROCK 642 sample(s);ME - 2 Map(s); 1:5000
SOIL 460 sample(s);CU,PB,ZN,AG - 12 Map(s); 1:2000

GEOLOGY: The property is underlain by the Callaghan Creek pendant, a 3 by 12 kilometre belt of Lower Cretaceous Gambier Group volcanic/sedimentary rocks intruded and surrounded by Upper Cretaceous Coast Plutonic Complex diorite and quartz monzonite. Tertiary to Recent Garibaldi Formation basalt flows outcrop along Callaghan Creek.

RELATED A.R.: 16527, 16709
MINFILE: 092J 012, 092J 019

Northair A.R. 16709 REPORT YEAR: 1987

OPERATOR(S): **Kidd Creek Mines**
AUTHOR(S): Clemmer, S.G.
MINING DIV: Vancouver
LOCATION: NTS 092J03E LAT. 50 07 20 LONG. 123 04 31
CLAIM(S): Northair 1,Northair 3-6,Alex 1,Rose,Edna 2
WORK DONE: EMGR 50.0 km;VLF
GEOL 2100.0 ha
IPOL 50.0 km
LINE 77.7 km
MAGG 50.0 km
PETR 33 sample(s)
ROCK 740 sample(s);ME
SOIL 780 sample(s);CU,PB,ZN,AG

GEOLOGY: The property is underlain by volcanic and sedimentary rocks of the Lower Cretaceous Gambier Group which are intruded by Upper Cretaceous intermediate plutons of the Coast Plutonic Complex.

These older rocks are cut by and unconformably overlain by basaltic and felsic dykes and flows of the Tertiary Garibaldi Group.

RELATED A.R.: 03273, 04153, 04541, 05225, 16527

Lill A.R. 17771 REPORT YEAR: 1988, 162 Pages

OPERATOR(S): **Green Lake Res.**
AUTHOR(S): Hannigan, P.
MINING DIV: Lillooet
LOCATION: NTS 092J07E LAT. 50 17 01 LONG. 122 36 05
CLAIM(S): Lill I-II,Lill 5
EXPL. TARGET: Zinc,Copper,Silver,Gold
WORK DONE: DIAD 1196.4 m 12 hole(s);BQ ,NQ
SAMP 250 sample(s);ME

GEOLOGY: Sphalerite, chalcopyrite, magnetite and pyrite/pyrrhotite are hosted in Upper Triassic Cadwallader Group rocks. Mineralization located to date is skarn, volcanogenic and structurally hosted types. Silicification and/or epidotization are notable alteration products associated with mineralization.

RELATED A.R.: 15838
MINFILE: 092JSE008, 092JSE009

Horn A.R. 18057 REPORT YEAR: 1988, 20 Pages

OPERATOR(S): **Savcor Consul.**
AUTHOR(S): Smith, G.F. Keyser, H.
MINING DIV: Kamloops
LOCATION: NTS 092J08E LAT. 50 21 00 LONG. 122 07 00
CLAIM(S): Horn 3

CONFIDENTIAL STATUS

Axe A.R. 17240 REPORT YEAR: 1988, 18 Pages

OPERATOR(S): **British Lion Mines**
AUTHOR(S): Macfarlane, H.S.
MINING DIV: Lillooet
LOCATION: NTS 092J09W LAT. 50 41 12 LONG. 122 29 37
CLAIM(S): Axe
EXPL. TARGET: Gold
WORK DONE: HMIN 2 sample(s);AU,AG
ROCK 1 sample(s);AU,AG

GEOLOGY: The property lies within a complex sequence of Mesozoic rocks bounded to the northeast by the Yalakom fault and to the southwest by the Tchaikazan fault. Middle Triassic-Upper Cretaceous rocks were deposited in a long, narrow subsiding trough, the Tyaughton Trough.
MINFILE: 092JNE038

White Cap A.R. 17177 REPORT YEAR: 1988, 48 Pages, 1 Map(s)

OPERATOR(S): **Armeno Res.**
AUTHOR(S): Haynes, L.R.
MINING DIV: Lillooet
LOCATION: NTS 092J09W, 092J16W LAT. 50 44 50 LONG. 122 24 57
CLAIM(S): Gold Cap 3-4,Aspen
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 0.6 km;VLF
GEOL 0.1 ha - 1 Map(s); 1:2500,1:200
HMIN 4 sample(s);ME
ROCK 42 sample(s);ME
SILT 2 sample(s);ME
SOIL 19 sample(s);ME
GEOLOGY: A small dioritic outlier of the Upper Cretaceous Bendor Batholith intrudes Permo-Triassic Bridge River Group metavolcanics and metasediments. Quartz veining containing disseminated sulphides are associated with the contact zone.
MINFILE: 092JNE093

Standard Creek A.R. 16725 REPORT YEAR: 1987

OPERATOR(S): **Armeno Res.**
AUTHOR(S): Haynes, L.R. Carpenter, T.H.
MINING DIV: Lillooet
LOCATION: NTS 092J10E LAT. 50 42 18 LONG. 122 38 34
CLAIM(S): Bralorne Ext.,Standard 1-2,Goldstream I-II,Butte-X-Cal,Goldstream Ext. 1-2,Mac 1-4,Mac 6,Mac 8, Tom 3,Tom 5,Tom 7,Pie 3-6
WORK DONE: DIAD 6369.0 m 28 hole(s);NQ
EMGR 48.0 km;VLF
GEOL 1200.0 ha
HMIN 17 sample(s);ME
LINE 25.0 km
MAGG 42.0 km
ROCK 372 sample(s);ME
SAMP 3251 sample(s);ME
SOIL 632 sample(s);ME
UNDV 139.0 m
GEOLOGY: A number of northwest trending fault zones and altered serpentinite bodies (fault emplaced?) have been identified. Gold-silver-copper mineralization is associated with veining, shearing and contacts with ultramafic rocks. The ultramafics are part of the Upper Triassic President Intrusions and cut Permian-Triassic Bridge River Group and Upper Triassic Cadwallader Group metamorphic rocks.
RELATED A.R.: 08001, 08878, 10211, 11944, 13232, 14698, 16595

Aurum A.R. 17537 REPORT YEAR: 1988, 34 Pages, 2 Map(s)

OPERATOR(S): **Newman, P. Yorston, B.**
AUTHOR(S): Newman, P. Yorston, B.
MINING DIV: Lillooet
LOCATION: NTS 092J10W LAT. 50 33 00 LONG. 122 47 00
CLAIM(S): Aurum,Aurum 2
EXPL. TARGET: Gold
WORK DONE: PROS 1000.0 ha - 2 Map(s); 1:8000,1:200
GEOLOGY: Upper Triassic, Hurley and Pioneer Formations, consisting of sediments and volcanics with metamorphic equivalents. The formations trend northwest and dip north. The layered rocks contact a quartz diorite pluton approximately one kilometre north of the claim group. Quartz veins and lenses of varying sizes occur in the Pioneer and Hurley Formations carrying gold, pyrite and minor silver, copper, zinc, lead and molybdenum values.
MINFILE: 092JNE

Tenquille A.R. 17261 REPORT YEAR: 1988, 74 Pages, 31 Map(s)

OPERATOR(S): **Ajax Res.**
AUTHOR(S): Butler, S.P. Blank, M.E.
MINING DIV: Lillooet
LOCATION: NTS 092J10W LAT. 50 31 08 LONG. 122 53 40
CLAIM(S): Seneca,Silver Bell,Haig 81,Gold King,Pt. Hex 81
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 15.0 km;VLF - 12 Map(s); 1:1000
GEOL 150.0 ha - 4 Map(s); 1:1000
IPOL 3.5 km
LINE 18.0 km
MAGG 15.0 km - 5 Map(s); 1:1000
ROCK 272 sample(s);CU,PB,ZN,AS,AG,AU - 4 Map(s); 1:1000
SOIL 257 sample(s);CU,PB,ZN,AS,AG,AU - 6 Map(s); 1:1000
GEOLOGY: The property is located just east of the margin of the Upper Cretaceous Coast Plutonic Complex. Local geology consists of a series of andesite flows, tuffs and breccias with some minor flows of rhyolite breccia and beds of slate, argillite, limestone and conglomerate, all part of the Upper Triassic Cadwallader Group. Mineralization consists of several massive sulphide/silver showings as well as quartz veins carrying gold values.
MINFILE: 092JNE049, 092JNE050, 092JNE051, 092JNE052, 092JNE053, 092JNE054

Avino-Olympic A.R. 16964 REPORT YEAR: 1988, 93 Pages, 5 Map(s)

OPERATOR(S): **Avino Mines**
AUTHOR(S): Friesen, P.S.
MINING DIV: Lillooet
LOCATION: NTS 092J15E, 092J15W LAT. 50 53 29 LONG. 122 43 56
CLAIM(S): Omega,Omega 1-2,Omega 4,Jack Fr.,Alpha Fr.,Golden Girl,Minto Fr.,Alpha 1-2,Alta 1-8, Alta 1-2 Fr.,Hillside 1-8,Hillside Ext. 3-4,Jhanta Fr.,Mellisande
EXPL. TARGET: Gold,Silver
WORK DONE: SOIL 1342 sample(s);ME - 4 Map(s); 1:4167,1:2500
TREN 100.0 m 12 trench(es) - 1 Map(s); 1:2500
GEOLOGY: Permo-Triassic Bridge River Group cherts are succeeded uncomformably by Upper Triassic Pioneer Formation basalts and other sediments of the Cadwallader Group.
MINFILE: 092JNE075, 092JNE086, 092JNE092, 092JNE107, 092JNE130

Bill Miner's Gold A.R. 18066 REPORT YEAR: 1988, 49 Pages, 2 Map(s)

OPERATOR(S): **La Ronge Res.**
AUTHOR(S): Roberts, P.S.
MINING DIV: Lillooet
LOCATION: NTS 092J15E LAT. 50 53 30 LONG. 122 42 00
CLAIM(S): Billy Miners Gold I

EXPL. TARGET:	Gold	
WORK DONE:	EMGR 2.0 km;VLF GEOL 300.0 ha - 2 Map(s); 1:1000,1:5000 LINK 2.5 km MAGG 2.0 km ROCK 13 sample(s);CU,PB,ZN,AS,AG,AU SOIL 48 sample(s);CU,PB,ZN,AS,AG,AU	
GEOLOGY:	Upper Jurassic Relay Mountain Group conglomerate and tuffaceous sandstone are in thrust fault contact overlying Upper Triassic Hurly Formation (Cadwallader Group) Ribbon chert and meta-volcanics. Minor gold anomalies occur in a vein structure, 20 centimetres wide, which strikes 135 degrees and dips steeply northeast. Kaolinite, calcite and minor limonite hydrothermal alteration occur in narrow fracture in fault zone.	
RELATED A.R.:	16282	
MINFILE:	092JNE139	

Congress Extension A.R. 16881 REPORT YEAR: 1987, 74 Pages, 4 Map(s)

OPERATOR(S):	**Coral Energy**	
AUTHOR(S):	Game, B.D.	
MINING DIV:	Lillooet	
LOCATION:	NTS 092J15E	LAT. 50 56 40 LONG. 122 36 14
CLAIM(S):	Congress Ext.,Congress Ext. 2	
EXPL. TARGET:	Gold,Silver,Lead,Zinc,Copper,Antimony,Arsenic	
WORK DONE:	GEOL 875.0 ha - 1 Map(s); 1:5000 SOIL 1703.0 ;AU,AG,PB,ZN,SB,CU,AS - 3 Map(s); 1:5000	
GEOLOGY:	Mixed sediments and volcanics of the Upper Cretaceous Kingsvale Group are exposed in a broad northeasterly band through the middle of the property. Considerable quartz and calcite alteration occur within the volcanics. Serpentine and serpentinized ultramafic rocks of the Upper Triassic President Intrusions are exposed in the northeast corner of Congress Ext. 2. A massive exposure of Permo-Triassic Bridge River Group greenstone and mixed sediments occur in the southeast half of Congress Ext.	
MINFILE:	092JNE039	

Hart A.R. 17377 REPORT YEAR: 1987, 67 Pages

OPERATOR(S):	**West-Mar Res.**	
AUTHOR(S):	Wood, D.H.	
MINING DIV:	Lillooet	
LOCATION:	NTS 092J15E	LAT. 50 54 35 LONG. 122 39 42
CLAIM(S):	Hart 1-2	
WORK DONE:	LINE 5.8 km ROCK 5 sample(s);ME SILT 4 sample(s);ME SOIL 104 sample(s);ME	
GEOLOGY:	The claims are underlain by chert, argillite and greenstone of the Permo-Triassic Bridge River Group. Copper and zinc soil anomalies parallel a large scale northwest trending fault.	

Minto A.R. 17790 REPORT YEAR: 1988, 105 Pages, 10 Map(s)

OPERATOR(S):	**Avino Mines**	
AUTHOR(S):	Sampson, C.J.	
MINING DIV:	Lillooet	
LOCATION:	NTS 092J15E, 092J15W	LAT. 50 54 17 LONG. 122 45 00
CLAIM(S):	Golden Queen,Helm Fr.,Jumper	
EXPL. TARGET:	Gold,Silver,Lead,Zinc	
WORK DONE:	DIAD 800.0 m 9 hole(s);NQ - 5 Map(s); 1:2500,1:500 TREN 300.0 m 16 trench(es) - 5 Map(s); 1:100	
GEOLOGY:	A series of mineralized shear zones containing arsenopyrite, stibnite, sphalerite, galena, gold and silver strike north through cherts and greenstones of Permo-Triassic Bridge River Group rocks.	
RELATED A.R.:	05716, 14740	
MINFILE:	092JNE075	

Summit A.R. 17958 REPORT YEAR: 1988, 72 Pages, 8 Map(s)

OPERATOR(S):	**Gold Summit Mines**	
AUTHOR(S):	Sampson, C.J.	
MINING DIV:	Lillooet	
LOCATION:	NTS 092J15E	LAT. 50 52 00 LONG. 122 31 00
CLAIM(S):	Summit 1-2,Shadow of Doubt,Glamorous Gold	
EXPL. TARGET:	Gold,Silver	
WORK DONE:	GEOL 400.0 ha - 2 Map(s); 1:2500 LINE 30.5 km SOIL 988 sample(s);AG,AS,SB,PB,ZN,CU,AU - 6 Map(s); 1:2500	
GEOLOGY:	A series of gold bearing quartz veins striking east to southeast, dipping steeply and up to 1 metre wide are situated in greenstones and cherts of the Bridge River (Fergusson) Group.	
MINFILE:	092JNE035	

BROX A.R. 17266 REPORT YEAR: 1988, 31 Pages, 1 Map(s)

OPERATOR(S):	**Levon Res.**	
AUTHOR(S):	Friesen, P.S.	
MINING DIV:	Lillooet	
LOCATION:	NTS 092J15W	LAT. 50 49 31 LONG. 122 49 00
CLAIM(S):	Aroc (L.6042),Reg Fr. (L.2402)	
EXPL. TARGET:	Gold,Silver	
WORK DONE:	DIAD 825.8 m 8 hole(s);NQ - 1 Map(s); 1:5000	
GEOLOGY:	Interlayered greenstone, argillite and chert of the Permo-Triassic Bridge River Group are intruded locally by soda granites.	
MINFILE:	092JNE	

Bralorne Ext. A.R. 17213 REPORT YEAR: 1988, 23 Pages

OPERATOR(S):	**Van Benten, L.**	
AUTHOR(S):	Butler, S.P.	
MINING DIV:	Lillooet	
LOCATION:	NTS 092J15W	LAT. 50 48 31 LONG. 122 50 28
CLAIM(S):	Bralorne Ext.	
WORK DONE:	GEOL 100.0 ha ROCK 1 sample(s);ME	
GEOLOGY:	Permo-Triassic Bridge River Group sediments (argillites, cherts, and interbedded argillites and cherts) outcrop. A small outcrop of Upper Triassic Pioneer Formation mafic rocks was also found.	

Dam A.R. 17703 REPORT YEAR: 1988, 11 Pages, 1 Map(s)

OPERATOR(S):	**Coral Gold**	
AUTHOR(S):	Friesen, P.S.	
MINING DIV:	Lillooet	
LOCATION:	NTS 092J15W	LAT. 50 50 00 LONG. 122 51 00
CLAIM(S):	Dam	

EXPL. TARGET: Gold
WORK DONE: DIAD 152.4 m 1 hole(s);NQ - 1 Map(s); 1:2000
GEOLOGY: The property is underlain by thick beds of chert interlayered with cherty argillites and some greenstone layers. Serpentine is present along the east boundary. Except for placer gold, no mineralization has been found on the property.

Eldorado Creek A.R. 18031 **REPORT YEAR: 1988, 31 Pages, 1 Map(s)**

OPERATOR(S): **Berkley Res.**
AUTHOR(S): Friesen, P.S.
MINING DIV: Lillooet
LOCATION: NTS 092J15W LAT. 50 56 00 LONG. 122 57 00
CLAIM(S): Dome 1-3,Dome Fr.,Last Chance 1-8,Last Chance 1-2 Fr.,Trail 1-6,Trail Fr.,Trail 1-2 Fr.
EXPL. TARGET: Gold,Silver
WORK DONE: EMAB 45.2 km;VLF
MAGA 45.2 km - 1 Map(s); 1:10 000
GEOLOGY: Hurley volcanics and sediments intruded by Bralorne augite diorite underlie the property.

GG A.R. 16912 **REPORT YEAR: 1988, 14 Pages, 2 Map(s)**

OPERATOR(S): **Chalice Min.**
AUTHOR(S): Hodgson, S.
MINING DIV: Lillooet
LOCATION: NTS 092J15W LAT. 50 52 00 LONG. 122 56 00
CLAIM(S): GG West
EXPL. TARGET: Gold
WORK DONE: EMGR 16.2 km; VLF - 1 Map(s); 1:5000
LINE 16.2 km
MAGG 16.2 km - 1 Map(s); 1:5000
GEOLOGY: Triassic sedimentary and volcanic rocks were intruded during three or more episodes along northwest trending regional structures. The Veritas Vein, dipping steeply to the northeast, was formed along a fracture system in altered volcanics (greenstone) which were intruded by a microdiorite pluton. The vein is up to 2 metres wide and contains native gold, arsenopyrite, pyrite, and lead. Other minerals present are calcite, ankerite, and serpentine.
RELATED A.R.: 11795, 12853

Goldbelt A.R. 17062 **REPORT YEAR: 1987, 139 Pages, 3 Map(s)**

OPERATOR(S): **Manhattan Min.**
AUTHOR(S): Sampson, C.J.
MINING DIV: Lillooet
LOCATION: NTS 092J15W LAT. 50 55 36 LONG. 122 46 54
CLAIM(S): Golden Sidewalk
EXPL. TARGET: Gold,Lead,Zinc
WORK DONE: ROTD 2226.5 m 22 hole(s) - 3 Map(s); 1:2500,1:500,1:250
SAMP 700 sample(s);AG,AS,CU,PB,SB,ZN,AU
GEOLOGY: Four mineralized shear zones (Dauntless, Peerless, Alpha and Beta) all containing gold, occur in Permo-Triassic Bridge River Group greenstones and argillites. The Dauntless and Peerless were explored by adits and diamond drilling in the past. The Alpha strikes east-west, dips 80 degrees south and carries gold to 13.7 grams per tonne over 2 metres. The Beta strikes 030-040 and dips 30-50 degrees northwest. Vertical rotary holes intersected up to 58.3 grams per tonne gold over 1.5 metres.
RELATED A.R.: 05325
MINFILE: 092JNE073, 092JNE076

Guns Gold A.R. 16929 **REPORT YEAR: 1987, 64 Pages, 6 Map(s)**

OPERATOR(S): **Panarim Res.**
AUTHOR(S): Cooke, B.J.
MINING DIV: Lillooet
LOCATION: NTS 092J15W LAT. 50 52 00 LONG. 122 52 00
CLAIM(S): Guns Gold
EXPL. TARGET: Gold
WORK DONE: EMGR 10.6 km; VLF - 1 Map(s); 1:5000
GEOL 300.0 ha - 1 Map(s); 1:2500
LINE 33.1 km
MAGG 31.1 km - 1 Map(s); 1:5000
SOIL 1302 sample(s);AU,AG,CU,PB,ZN,AS,SB - 3 Map(s); 1:5000
GEOLOGY: The Guns Gold property is underlain predominantly by cherts and argillites of the Triassic Bridge River Group in fault contact with a wedge of Triassic Cadwallader Group siltstones, sandstones and andesite and diorite.Narrow shear zones of the Tuscarora prospect are weakly mineralized with gold, silver, arsenic, copper and molybdenum.

Oro A.R. 17689 **REPORT YEAR: 1988, 23 Pages, 2 Map(s)**

OPERATOR(S): **Congress Operating**
AUTHOR(S): Brewer, L.
MINING DIV: Lillooet
LOCATION: NTS 092J15W LAT. 50 47 00 LONG. 122 51 30
CLAIM(S): Oro 1-5
EXPL. TARGET: Gold,Antimony
WORK DONE: EMAB 81.5 km; VLF - 1 Map(s); 1:10 000
MAGA 81.5 km - 1 Map(s); 1:10 000
GEOLOGY: The Oro property is underlain by Triassic Hurley Formation argillite, sandstone, limestone, and greenstone, and quartz diorite or hornblende porphyry stocks or dykes of the Cretaceous Coast Intrusions. Narrow quartz veins containing gold values and stibnite veins in quartz diorite have been reported.
RELATED A.R.: 08259, 09375, 12962, 14725

Swan A.R. 17025 **REPORT YEAR: 1988, 25 Pages**

OPERATOR(S): **Van Benten, L.**
AUTHOR(S): Butler, S.P.
MINING DIV: Lillooet
LOCATION: NTS 092J15W LAT. 50 50 07 LONG. 122 52 46
CLAIM(S): Swan,Swan I-II
WORK DONE: GEOL 100.0 ha
ROCK 5 sample(s);ME
SOIL 6 sample(s);ME
GEOLOGY: The claims are underlain by contorted cherts of the Permo-Triassic Bridge River Group. A small gabbro stock of the Upper Triassic Bralorne Intrusions and several quartz monzonite dykes of unknown age were found.

Wayside A.R. 17091 **REPORT YEAR: 1988, 556 Pages, 43 Map(s)**

OPERATOR(S): **Chevron Can. Res.**
AUTHOR(S): Dick, L. Howell, W. Moffat, L.
MINING DIV: Lillooet

PEMBERTON 092J

LOCATION: NTS 092J15W LAT. 50 52 57 LONG. 122 49 25
CLAIM(S): Wayside Ext. 2,Lake 1,Helium,Queen City Fr.,Rodeo,Commodore Fr.,Lodge,Alpha,Beta,Gamma,Cabinet,Counsel,Newport,Camp Denison,Sun
EXPL. TARGET: Gold
WORK DONE: DIAD 924.8 m 8 hole(s);NQ HQ - 4 Map(s); 1:5000,1:1000
EMGR 30.4 km;VLF - 10 Map(s); 1:5000,1:2000
GEOL 1870.0 ha - 10 Map(s); 1:5000,1:2000,1:1000
LINE 35.0 km
MAGG 30.4 km - 5 Map(s); 1:5000,1:2000
ROCK 433 sample(s);ME
SAMP 262 sample(s);ME
SOIL 1440 sample(s);ME - 5 Map(s); 1:5000,1:2000
TREN 1077.0 m 41 trench(es) - 9 Map(s); 1:5000,1:2000,1:100

GEOLOGY: The area is underlain by the Permo-Triassic volcano-sedimentary Bridge River Group and the Upper Triassic Cadwallader Group. In fault contact with these are the Bralorne Intrusions considered to be of Permian age. The area exhibits a high degree of faulting which seems to control the alteration and vein formation. Alteration takes the form of carbonatization and silicification. Mineralization is present as native gold in banded quartz veins.

RELATED A.R.: 16718
MINFILE: 092JNE030, 092JNE121, 092JNE124

Wayside A.R. 16718 REPORT YEAR: 1987

OPERATOR(S): **Chevron Can. Res.**
AUTHOR(S): Dick, L. Howell, W. McPherson, M.D.
MINING DIV: Lillooet
LOCATION: NTS 092J15W LAT. 50 52 57 LONG. 122 49 25
CLAIM(S): Lake 1,Wayside Ext. 2,Argon,Radium,Helium,Commodore Fr.,Beta,Sun,Spring A-C
WORK DONE: DIAD 922.0 m 8 hole(s);NQ
EMGR 20.0 km;VLF
GEOL 506.0 ha
MAGG 20.0 km
ROCK 433 sample(s);ME
SAMP 262 sample(s);ME
SOIL 1400 sample(s);ME
TREN 1077.0 m 40 trench(es)

GEOLOGY: The property area is predominantly underlain by the eugeosynclinal volcano-sedimentary Permo-Triassic Bridge River Group and the Upper Triassic Cadwallader Group. In fault contact with these bedded rocks are the Bralorne Intrusions, considered to be of Permian age. Bedded rocks are intruded by the Upper Cretaceous Coast Plutonic Complex and by a suite of younger (Eocene?) dykes and minor intrusions.

Camoo A.R. 17674 REPORT YEAR: 1988, 16 Pages

OPERATOR(S): **Boitard, C.**
AUTHOR(S): Boitard, C. LaRue, J.P.
MINING DIV: Lillooet
LOCATION: NTS 092J16E LAT. 50 47 35 LONG. 122 06 35
CLAIM(S): Camoo 1-2
WORK DONE: IPOL 7.2 km

GEOLOGY: The property is underlain by Fergusson Group rocks consisting of an alternating sequence of sediments and volcanics. The sediments are comprised of banded chert beds with argillaceous partings. Pods and beds of crystalline limestones are not uncommon. The volcanics are fine-grained, massive to schistose andesitic to basaltic lavas.

BUTE INLET 092K

Nat A.R. 17797 REPORT YEAR: 1988, 125 Pages, 16 Map(s)

OPERATOR(S): **Lone Jack Res.**
AUTHOR(S): Kallock, P. Goldsmith, L.B.
MINING DIV: Nanaimo
LOCATION: NTS 092K03E, 092K03W LAT. 50 13 00 LONG. 125 15 45
CLAIM(S): Nat 1,Nat 4-10,Nat 11-12,Nat 15-16,Tam 3,Tam 5
EXPL. TARGET: Gold,Copper
WORK DONE: DIAD 604.9 m 9 hole(s);NQ - 8 Map(s); 1:200
GEOL 2670.0 ha - 5 Map(s); 1:500,1:1000,1:5000,1:10 000
PETR 7 sample(s)
ROAD 1.3 km
ROCK 72 sample(s);AU,ME
SOIL 657 sample(s);AU,ME - 3 Map(s); 1:5000
TREN 260.0 m

GEOLOGY: Upper Triassic Karmutsen Formation andesitic volcanics and Quatsino Formation limestone underlie the western part of the property. Jurassic to Cretaceous diorite and quartz diorite of the Coast Range intrusive complex underlies the eastern part of the claims. A main suture or fault zone extends north-northwest throughout the length of the property. Gold occurs in massive sulphides or in quartz veins in an unpredictable fashion.

MINFILE: 092K 141

Santana A.R. 17256 REPORT YEAR: 1988, 17 Pages

OPERATOR(S): **Javorsky, D.**
AUTHOR(S): Javorsky, D.
MINING DIV: Nanaimo
LOCATION: NTS 092K03E LAT. 50 11 30 LONG. 125 09 30
CLAIM(S): Santana 1-8,Gem,Bonanza
EXPL. TARGET: Copper,Gold,Silver
WORK DONE: PROS 500.0 ha

GEOLOGY: Pyrite and chalcopyrite are contained in a narrow skarn in metamorphic rocks at the contact between granodiorite and limestone. Minor gold values have also been reported..

MINFILE: 092K 013

White Pine A.R. 17274 REPORT YEAR: 1988, 156 Pages, 36 Map(s)

OPERATOR(S): **Rea Gold**
AUTHOR(S): Windsor, D.M. Blanchflower, J.D.
MINING DIV: Vancouver
LOCATION: NTS 092K06W LAT. 50 26 18 LONG. 125 21 30
CLAIM(S): Bick 2,White Pine,Electric,Union,Stump Ranch
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: DIAD 1162.9 m 13 hole(s);NQ - 14 Map(s); 1:2500,1:500
EMGR 20.2 km;VLF - 4 Map(s); 1:2500
GEOL 164.0 ha - 2 Map(s); 1:2500
LINE 21.8 km
MAGG 21.8 km - 2 Map(s); 1:2500
ROAD 2.9 km
ROCK 86 sample(s);ME
SAMP 65 sample(s);AU,AG,CU,PB,ZN,MO,AS

BUTE INLET 092K

SOIL 531 sample(s);ME - 14 Map(s); 1:2500

TREN 100.0 m 3 trench(es)

GEOLOGY: The property is underlain by Paleozoic schists, greenstone, augite porphyry, gneiss of greenschist to amphibolite grade metamorphism and fine to coarse-grained quartz dioritic-granodioritic intrusive rocks of the Upper Cretaceous Coast Plutonic Complex. The gold and silver bearing mineralization is hosted by quartz-sulphide veins which are fracture controlled by northeasterly to northwesterly trending fault and shear structures.

RELATED A.R.: 15589

MINFILE: 092K 036

Flo A.R. 16854 **REPORT YEAR: 1987, 20 Pages**

OPERATOR(S): **Raven, A.**

AUTHOR(S): Brownlee, D.J.

MINING DIV: Vancouver

LOCATION: NTS 092K07W LAT. 50 21 10 LONG. 124 45 57

CLAIM(S): Flo 9-12

EXPL. TARGET: Gold

WORK DONE: ROCK 29 sample(s);ME

SOIL 44 sample(s);CU,PB,ZN,AG

GEOLOGY: The property is underlain by granodiorite and quartz monzonite of the Upper Cretaceous Coast Plutonic Complex and is intruded by two separate intermediate-felsic dyke swarms. The central part of the claims are underlain by a roof pendant of mafic-felsic volcanics.

Phillips Arm A.R. 17067 **REPORT YEAR: 1988, 39 Pages, 2 Map(s)**

OPERATOR(S): **Charlemagne Res.**

AUTHOR(S): Hardy, J.

MINING DIV: Vancouver

LOCATION: NTS 092K11W LAT. 50 30 13 LONG. 125 23 31

CLAIM(S): Enid

EXPL. TARGET: Gold

WORK DONE: DIAD 102.1 m 1 hole(s);BQ - 2 Map(s); 1:10 000,1:500

SAMP 94 sample(s);AU,CU,AG

GEOLOGY: Northwest trending blocks of Triassic and older mixed volcanics are bounded by granodiorite of the Upper Cretaceous Coast Plutonic Complex. An auriferous quartz vein in a shear zone at Alexandria has 25 582 tonnes of 9.9 grams per tonne estimated.

RELATED A.R.: 06108, 08287, 10399, 11839, 12577, 13864, 14466, 15720

MINFILE: 092K 024

Poison Creek A.R. 17161 **REPORT YEAR: 1987, 94 Pages**

OPERATOR(S): **Stina Res.**

AUTHOR(S): Von Einsiedel, C.A.

MINING DIV: Vancouver

LOCATION: NTS 092K12E LAT. 50 37 52 LONG. 125 31 25

CLAIM(S): Poison 1-8,Shamrock

EXPL. TARGET: Gold,Copper,Silver

WORK DONE: GEOL 200.0 ha

ROCK 32 sample(s);ME

SILT 50 sample(s);ME

SOIL 760 sample(s);ME

GEOLOGY: The property covers a roof pendant of Upper Triassic Karmutsen Formation phyllites and chlorite schists within granitic intrusives of the Upper Cretaceous Coast Plutonic Complex. Pyrrhotite and chalcopyrite mineralization is developed along intrusive/sediment contacts.

MINFILE: 092K 111, 092K 112

ALERT BAY 092L

Dave A.R. 17449 **REPORT YEAR: 1988, 23 Pages**

OPERATOR(S): **Stetson Res. Management**

AUTHOR(S): Henneberry, T.

MINING DIV: Nanaimo

LOCATION: NTS 092L01E, 092L08E LAT. 50 15 00 LONG. 126 02 00

CLAIM(S): Dave

EXPL. TARGET: Gold,Silver

WORK DONE: ROCK 20 sample(s);AU,AG

SILT 11 sample(s);AU

GEOLOGY: A dacitic dyke of undetermined age intrudes Quatsino limestone. Auriferous sulphide mineralization and silicification is confined to within the dyke contacts. The dyke strikes 179 degrees and dips 81 degrees west and can be seen striking under the Adam River. Values of up to 0.327 ounces per tonne gold have been obtained over widths up to 1.10 metres.

MINFILE: 092L 116

Dave A.R. 17755 **REPORT YEAR: 1988, 15 Pages**

OPERATOR(S): **Welcome North Mines**

AUTHOR(S): Roberts, W.J.

MINING DIV: Nanaimo

LOCATION: NTS 092L01E LAT. 50 15 00 LONG. 126 01 00

CLAIM(S): Dave

WORK DONE: PROS 1000.0 ha

GEOLOGY: The claims are underlain by an east to northeast trending, south dipping sequence of Upper Triassic volcanic and sedimentary rocks of the Vancouver Group. The oldest rocks are basaltic to andesitic lavas, breccias and tuffs of the Karmutsen Formation which is overlain by massive limestone of the Quatsino Formation.

RELATED A.R.: 17449

Gold Rock A.R. 17376 **REPORT YEAR: 1988, 25 Pages**

OPERATOR(S): **Englund, R.J. Englund, D.J.**

AUTHOR(S): Butler, S.P.

MINING DIV: Alberni

LOCATION: NTS 092L02W LAT. 50 02 56 LONG. 126 47 28

CLAIM(S): Yauco 2,Gold Rock 1,Gold Rock Fr.

EXPL. TARGET: Gold,Copper,Silver

WORK DONE: LINE 0.6 km

MAGG 0.6 km

ROCK 2 sample(s);AG,AU,ZN,PB,AS,CU

SOIL 49 sample(s);AU,AG,ZN,PB,AS,CU

GEOLOGY: A fault divides Upper Triassic Karmutsen Formation volcanics from Upper Triassic Quatsino Formation limestone. Narrow quartz veins are developed in the Karmutsen Formation volcanics. The veins carry gold with pyrite, sphalerite and arsenopyrite with minor galena, pyrrhotite and chalcopyrite.

RELATED A.R.: 05765

Scrutor Gold A.R. 17134 REPORT YEAR: 1988, 36 Pages, 2 Map(s)

OPERATOR(S):	**MineQuest Ex. Assoc.**
AUTHOR(S):	Lee, L.J.
MINING DIV:	Alberni
LOCATION:	NTS 092L03E LAT. 50 08 00 LONG. 127 01 00
CLAIM(S):	Scrutor Gold 1-4
EXPL. TARGET:	Gold,Zinc,Cadmium
WORK DONE:	GEOL 200.0 ha - 1 Map(s); 1:10 000 PETR 7 sample(s) ROCK 21 sample(s);ME SILT 8 sample(s);ME SOIL 40 sample(s);ME - 1 Map(s); 1:10 000
GEOLOGY:	Felsic and intermediate volcanics of the Bonanza Group contain two promising zones of: 1) gold in pyritiferous felsic breccia; 2) sphalerite veinlets in massive to brecciated felsic volcanics.
RELATED A.R.:	14618, 15562
MINFILE:	092L 100

Cap A.R. 17042 REPORT YEAR: 1988, 61 Pages, 1 Map(s)

OPERATOR(S):	**Tournigan Min. Ex.**
AUTHOR(S):	George, J.W.
MINING DIV:	Alberni
LOCATION:	NTS 092L03W LAT. 50 10 00 LONG. 127 24 30
CLAIM(S):	Cap
EXPL. TARGET:	Gold,Copper
WORK DONE:	LINE 13.7 km SOIL 437 sample(s);ME - 1 Map(s); 1:2500
GEOLOGY:	Lower Jurassic Bonanza volcanics, consisting largely of andesite lavas, crystal tuffs, and rhyo-dacite flows, show low grade alteration characterized by chlorite, epidote and hematite.

Sin A.R. 17763 REPORT YEAR: 1988, 64 Pages, 3 Map(s)

OPERATOR(S):	**Taywin Res.**
AUTHOR(S):	Rebagliati, C.M.
MINING DIV:	Alberni
LOCATION:	NTS 092L03W LAT. 50 09 47 LONG. 127 23 25
CLAIM(S):	Sin 1-2
EXPL. TARGET:	Gold,Silver
WORK DONE:	DIAD 304.9 m 8 hole(s);NQ - 2 Map(s); 1:500 ROCK 22 sample(s);AU,AG SAMP 113 sample(s);AU,AG TREN 10.0 m 1 trench(es) - 1 Map(s); 1:300
GEOLOGY:	Brecciated banded quartz-calcite veins up to 10 metres thick, hosting rich shoots of electrum, cut Upper Triassic Quatsino Formation limestone at the contact of the Lower Jurassic Bonanza Group.
RELATED A.R.:	15521
MINFILE:	092L 174, 092L 202

Kost A.R. 18038 REPORT YEAR: 1988, 19 Pages, 1 Map(s)

OPERATOR(S):	**Wilson, J.**
AUTHOR(S):	Zastavnikovich, S.
MINING DIV:	Nanaimo
LOCATION:	NTS 092L05W LAT. 50 27 00 LONG. 127 50 00
CLAIM(S):	Kost 1
WORK DONE:	ROCK 8 sample(s);ME SILT 16 sample(s);ME SOIL 13 sample(s);ME - 1 Map(s); 1:12 000
GEOLOGY:	The property is underlain by a northwest striking contact zone between early Jurassic Bonanza Formation to the west and Late Triassic Parson Bay sediments to the east.

Bonanza River A.R. 17512 REPORT YEAR: 1988, 41 Pages, 3 Map(s)

OPERATOR(S):	**Better Res.**
AUTHOR(S):	Rennie, C.C. Stanta, A.
MINING DIV:	Nanaimo
LOCATION:	NTS 092L07E LAT. 50 18 00 LONG. 126 42 30
CLAIM(S):	Elk 1-3
EXPL. TARGET:	Gold,Silver
WORK DONE:	GEOL 2200.0 ha - 1 Map(s); 1:10 000 MAGG 11.0 km - 1 Map(s); 1:5000 SAMP 18 sample(s);AU,AG - 1 Map(s); 1:10 000
GEOLOGY:	The claims cover a steep to vertical contact between Karmutsen Formation volcanics on the west and Island Intrusives granodiorite on the east. Shearing with some brecciation, minor alteration and carbonate veining occurs in the volcanics at the contact. Very fine placer gold with magnetite occurs in the Bonanza River and may be derived from this contact area.

Bonanza A.R. 17760 REPORT YEAR: 1988, 26 Pages

OPERATOR(S):	**Industrial Fillers**
AUTHOR(S):	Soux, C. Coffin, D.
MINING DIV:	Nanaimo
LOCATION:	NTS 092L07W LAT. 50 25 00 LONG. 126 47 00
CLAIM(S):	Bonanza 1

CONFIDENTIAL STATUS

Tsulton A.R. 17759 REPORT YEAR: 1988, 28 Pages

OPERATOR(S):	**Industrial Fillers**
AUTHOR(S):	Coffin, D. Soux, C.
MINING DIV:	Nanaimo
LOCATION:	NTS 092L07W LAT. 50 25 00 LONG. 126 57 00
CLAIM(S):	Tsulton 1

CONFIDENTIAL STATUS

Apple A.R. 17580 REPORT YEAR: 1988, 53 Pages, 8 Map(s)

OPERATOR(S): **BHP-Utah Mines**
AUTHOR(S): Clarke, G.A.
MINING DIV: Nanaimo
LOCATION: NTS 092L11W, 092L12E LAT. 50 37 39 LONG. 127 32 56
CLAIM(S): Apple 2-5,Juno,Mimas,QL 1-2,Lake,Ruby,F 1-15,Ken 1-8,Bob 1-2,Bay 52-63,Kol 1 Fr.-9Fr.,Kol 15-38 Coir 1-3,Cove 17-20,Mining Lease 34
WORK DONE: EMAB 390.0 km;VLF - 2 Map(s); 1:12 000
MAGA 390.0 km - 6 Map(s); 1:12 000
GEOLOGY: The area is underlain by the Upper Triassic to Lower Jurassic volcanic and sedimentary succession of the Vancouver and Bonanza Groups and Cretaceous sedimentary cover. Middle Jurassic granodioritic stocks (Quatse stock) and quartz-feldspar porphyry dykes cut the gently southwestward dipping succession. Copper and molybdenum are mined from the Bonanza Group east of the claims.
RELATED A.R.: 17581
MINFILE: 092L 099, 092L 135, 092L 136, 092L 137, 092L 138

Cliff-Pick A.R. 17029 REPORT YEAR: 1988, 44 Pages, 2 Map(s)

OPERATOR(S): **McAndrew, J.M.**
AUTHOR(S): McAndrew, J.M.
MINING DIV: Nanaimo
LOCATION: NTS 092L11W, 092L12E LAT. 50 37 30 LONG. 127 30 54
CLAIM(S): Pick 1-4,Pick 5 Fr.,Cliff 2-3,Cliff 78
EXPL. TARGET: Copper,Zinc,Lead,Silver,Gold
WORK DONE: GEOL 250.0 ha - 1 Map(s); 1:2500
MAGG 10.6 km
SOIL 170 sample(s);CU,ZN - 1 Map(s); 1:2500
GEOLOGY: Upper Triassic Karmutsen Formation basalt and andesite flows, massive Quatsino Formation limestone, Parsons Bay Formation argillaceous and carbonaceous sedimentary rocks, and Lower Jurassic Bonanza Group andesitic flows and breccias are intruded by Jurassic-Tertiary granodiorite, diorite and andesite. Skarn mineralization containing chalcopyrite, bornite, sphalerite, galena, pyrite, magnetite and specularite occurs along limestone contacts for over 2 kilometres. The mineralization strikes northeasterly, usually has a shallow dip to the southeast and has been block faulted. Some faults may have served as channelways for mineralizing solutions.
RELATED A.R.: 08284, 09853

East 88 A.R. 17368 REPORT YEAR: 1988, 28 Pages, 9 Map(s)

OPERATOR(S): **BHP-Utah Mines**
AUTHOR(S): Fleming, J.A. Brabec, D.
MINING DIV: Nanaimo
LOCATION: NTS 092L11W LAT. 50 35 53 LONG. 127 24 45
CLAIM(S): Rupert 6 Fr.,Rupert 15,Rupert 18,Snafu,Expo 51
WORK DONE: PITS 21 pit(s)
SOIL 160 sample(s);ME - 9 Map(s); 1:12 000,1:2400
GEOLOGY: The Upper Triassic and Lower Jurassic volcanic and sedimentary succession of the Vancouver and Bonanza Groups underlie the area. Porphyry dykes believed to be linked to the Rupert stock extend east from Rupert Inlet. From south to north the underlying succession dipping gently southward, from top to bottom, is the Bonanza Group pyroclastic volcanics, Parsons Bay Formation calcareous siltstones, shales and limestone with shaly interbeds, Quatsino Formation limestone and Karmutsen Formation amygdaloidal basalt.
RELATED A.R.: 05102, 06056, 11460, 16510

Eric A.R. 17761 REPORT YEAR: 1988, 15 Pages

OPERATOR(S): **Industrial Fillers**
AUTHOR(S): Soux, C. Coffin, D.
MINING DIV: Nanaimo
LOCATION: NTS 092L11W LAT. 50 33 00 LONG. 127 03 00
CLAIM(S): Eric

CONFIDENTIAL STATUS

Island Copper A.R. 17892 REPORT YEAR: 1988, 220 Pages, 3 Map(s)

OPERATOR(S): **BHP-Utah Mines**
AUTHOR(S): Clarke, G.A.
MINING DIV: Nanaimo
LOCATION: NTS 092L11W LAT. 50 36 00 LONG. 127 25 00
CLAIM(S): Mining Lease 36
EXPL. TARGET: Copper,Molybdenum/Molybdenite,Gold
WORK DONE: DIAD 1751.0 m 10 hole(s);NQ - 3 Map(s); 1:4800
GEOLOGY: The area is underlain by the Upper Triassic to Lower Jurassic volcanic and sedimentary succession of the Vancouver and Bonanza Groups and the cretaceous sedimentary cover. Middle Jurassic granodioritic stocks (e.g. Rupert stock), and quartz-feldspar porphyry dykes cut the succession. Hydrothermal alterations and mineralization are associated with the porphyry dykes in the Bonanza tuffs. The succession dips gently to the southwest. The Dawson (Holberg) fault cuts the claim block uplifting Karmutsen rocks adjacent to Bonanza.
MINFILE: 092L 062

Apple 88 A.R. 17581 REPORT YEAR: 1988, 230 Pages, 17 Map(s)

OPERATOR(S): **BHP-Utah Mines**
AUTHOR(S): Fleming, J.A.
MINING DIV: Nanaimo
LOCATION: NTS 092L12E LAT. 50 37 30 LONG. 127 32 30
CLAIM(S): Mimas,Juno,Bar,Bar Fr.,Apple 2-5
WORK DONE: LINE 76.5 km
SOIL 2631 sample(s);ME - 17 Map(s); 1:400,1:1000
GEOLOGY: The area is underlain by the Upper Triassic to Lower Jurassic volcanic and sedimentary succession of the Vancouver and Bonanza Groups and the Cretaceous sedimentary cover. Middle Jurassic granodioritic stocks (Quatse stock), and quartz-feldspar porphyry dykes cut the gently southwestward dipping succession. Three broad anomaly areas and three smaller clusters of multielement anomalies were identified.
RELATED A.R.: 17580

Central 89 A.R. 17297 REPORT YEAR: 1988, 247 Pages, 22 Map(s)

OPERATOR(S): **BHP-Utah Mines**
AUTHOR(S): Fleming, J.A. Clarke, G.A. Burt, P.D.
MINING DIV: Nanaimo
LOCATION: NTS 092L12E LAT. 50 36 39 LONG. 127 30 17
CLAIM(S): Mining Lease 34
EXPL. TARGET: Copper,Molybdenum/Molybdenite
WORK DONE: DIAD 2905.0 m 14 hole(s);HQ ,NQ - 22 Map(s); 1:12 000,1:1200,1:240
SAMP 899 sample(s);CU,MO,AU,AG,PB,ZN
GEOLOGY: The Bay (Frances) Lake area, located immediately northwest of the Island Copper pit, is underlain by faulted, locally highly fractured, hydrothermally altered andesitic fragmental rocks with textures ranging from fine ash tuffs to volcanic breccias. Quartz-feldspar porphyry dykes with associated sericite-pyrophyllite wallrock alteration cuts the tuffs. Copper mineralization occurs as narrow, high grade chalcopyrite bearing structures cutting propylitically altered fragmental andesites on the southwest corner of the lake, as disseminated chalcopyrite in biotite-chlorite-magnetite altered and silicified andesites in a small tabular deposit grading >0.30 per cent copper across the north of the lake and as a broad expanse of low grade <0.30 per cent copper across the north side of the lake in biotite-chlorite-magnetite and quartz-pyrite altered tuffs.
RELATED A.R.: 07427, 08150, 11366, 12271, 13346
MINFILE: 092L 099, 092L 136

HPH A.R. 17445 REPORT YEAR: 1988, 72 Pages, 3 Map(s)

OPERATOR(S): **Hisway Res.**
AUTHOR(S): Christopher, P.A. Magrum, M.
MINING DIV: Nanaimo
LOCATION: NTS 092L12W, 092L12E LAT. 50 41 00 LONG. 127 45 00
CLAIM(S): Cliff,Jr 1-4
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: DIAD 381.5 m 6 hole(s);AQ
GEOL 100.0 ha - 3 Map(s); 1:2500
LINE 10.0 km
ROAD 2.0 km
SAMP 22 sample(s);CU,PB,ZN,AU,AG
GEOLOGY: Triassic volcanics and carbonate rocks are intruded by dioritic stocks of the Island Intrusive Complex. Numerous mineral showings occur along an east-west striking contact between a carbonate unit and the base of a volcanic sequence. The showings consist of auriferous zinc-rich skarns and replacement zones.
MINFILE: 092L 069, 092L 076, 092L 241, 092L 242, 092L 243

HPH A.R. 17393 REPORT YEAR: 1988, 22 Pages

OPERATOR(S): **Hisway Res.**
AUTHOR(S): Christopher, P.A.
MINING DIV: Nanaimo
LOCATION: NTS 092L12W LAT. 50 41 37 LONG. 127 47 26
CLAIM(S): HPH 1-3
WORK DONE: ROCK 6 sample(s);CU,PB,ZN,AG,AU
GEOLOGY: The property is underlain by Upper Triassic Vancouver Group rocks which are intruded by Upper Cretaceous Coast Plutonic Complex granodiorite and older diorite and felsite dykes. Significant mineralized zones are generally associated with fault or fracture zones near limestone-intrusive contacts or felsite and andesite dykes within the limestone.
RELATED A.R.: 02205, 02796, 04180, 16347
MINFILE: 092L 069, 092L 241, 092L 242

Island Copper A.R. 16778 REPORT YEAR: 1987

OPERATOR(S): **BHP-Utah Mines**
AUTHOR(S): Burt, P.D. Fleming, J.A.
MINING DIV: Nanaimo
LOCATION: NTS 092L12W, 092L11W LAT. 50 36 39 LONG. 124 30 00
CLAIM(S): M 34

CONFIDENTIAL STATUS

Red Dog A.R. 18023 REPORT YEAR: 1988, 88 Pages

OPERATOR(S): **TP Res.**
AUTHOR(S): Richards, J.B.
MINING DIV: Nanaimo
LOCATION: NTS 092L12W LAT. 50 42 00 LONG. 127 58 00
CLAIM(S): Red Dog 5,Red Dog 7,Red Dog Fr.
EXPL. TARGET: Copper,Gold,Molybdenum/Molybdenite
WORK DONE: DIAD 1041.8 m 4 hole(s);NQ
SAMP 287 sample(s);CU,MO,AU,AG
GEOLOGY: Jurrassic age Bonanza volcanics, largely andesitic tuffs, are intruded and mineralized by feldspar porphyry dykes. Strong hydrothermal alteration and sulphide mineralization are related to fracturing adjacent to the intrusives. Economic sulphides are chalcopyrite and molybdenite. Gold is also very important.
RELATED A.R.: 00684, 01621, 03400, 03958, 04754, 05262, 05345, 11048, 12027
MINFILE: 092L 200

Bonanza A.R. 17049 REPORT YEAR: 1987, 66 Pages, 9 Map(s)

OPERATOR(S): **American Bullion Min.**
AUTHOR(S): Dawson, G.
MINING DIV: Vancouver
LOCATION: NTS 092L14E LAT. 50 58 06 LONG. 127 06 54
CLAIM(S): Bonanza 1-2
EXPL. TARGET: Lead,Zinc,Copper,Silver,Gold
WORK DONE: EMGR 31.7 km; VLF - 5 Map(s); 1:2000
GEOL 300.0 ha - 2 Map(s); 1:100,1:500
MAGG 31.7 km - 2 Map(s); 1:2000
ROCK 109 sample(s);ME
GEOLOGY: Roof pendant volcanic and sedimentary rocks of unknown age overlie the Juro-Cretaceous Coast Plutonic Complex. Quartz-sulphide

gold mineralization occurs in a 5 metre wide northwest trending shear zone cutting the sedimentary rocks.
MINFILE: 092L 292

MOUNT WADDINGTON 092N

Argo-Langara A.R. 17980 REPORT YEAR: 1988, 79 Pages, 5 Map(s)

OPERATOR(S): **Equinox Res. Can. Orient Res.**
AUTHOR(S): Albert, R.
MINING DIV: Clinton
LOCATION: NTS 092N07E LAT. 51 29 00 LONG. 124 36 00
CLAIM(S): Argo 1-2,Argo,Mary,Langara 1-7,Federal,Arasko IV
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 450.0 ha - 1 Map(s); 1:5000
LINE 56.0 km
ROCK 97 sample(s);AG,AS,AU
SOIL 1470 sample(s);AG,AS,AU - 4 Map(s); 1:5000
GEOLOGY: Gold and silver-bearing epithermal quartz veins are highly mineralized with arsenopyrite and pyrite and locally minor chalcopyrite and malachite. The veins occupy north-northwest striking joint sets in a 200 by 300 metres wide silicified zone in sedimentary rocks at the contact with quartz diorite of the Coast Plutonic Complex. The sedimentary rocks are part of the Middle Jurassic to Upper Cretaceous Tyaughton Trough.
RELATED A.R.: 16959
MINFILE: 092N 036, 092N 037, 092N 038

Argo-Langara A.R. 16959 REPORT YEAR: 1988, 39 Pages, 3 Map(s)

OPERATOR(S): **Equinox Res. Can. Orient Res.**
AUTHOR(S): Herberlein, K. Lammle, C.A.R.
MINING DIV: Clinton
LOCATION: NTS 092N07E LAT. 51 29 31 LONG. 124 35 53
CLAIM(S): Argo (L.1177),Argo 1-3,Mary (L.1178),Langara 1-7
EXPL. TARGET: Gold,Silver
WORK DONE: LINE 2.1 km
PROS 750.0 ha - 3 Map(s); 1:5000,1:500
ROCK 61 sample(s);ME
SILT 26 sample(s);ME
SOIL 51 sample(s);ME
GEOLOGY: Gold-silver bearing quartz veins are associated with a broad silicified and sulphidized contact zone between Upper Cretaceous Coast Plutonic Complex quartz diorite and Lower Cretaceous sedimentary and volcanic rocks of the Tyaughton Trough.
MINFILE: 092N 036, 092N 038

Gossan A.R. 17200 REPORT YEAR: 1988, 22 Pages, 2 Map(s)

OPERATOR(S): **Mooney, P.**
AUTHOR(S): Watson, I.M.
MINING DIV: Clinton
LOCATION: NTS 092N09W LAT. 51 37 00 LONG. 124 29 00
CLAIM(S): Gossan 1-2
EXPL. TARGET: Copper,Gold
WORK DONE: HMIN 8 sample(s);ME
PROS 750.0 ha - 2 Map(s); 1:4800
ROCK 22 sample(s);ME
GEOLOGY: Cretaceous flow rocks and tuffs of intermediate to felsic composition are intruded by Coast Range quartz diorite and related feldspar porphyry sills (?) The volcanics lie within a fault-bound wedge at the southern corner of the quartz diorite pluton. Intense fracturing, shearing and pyritization are related to the faults. Erratic and weak copper mineralization occurs in zones of shearing and propylitic alteration adjacent to the porphyritic intrusives. Minor values of gold are associated with small pyritic quartz veins.
MINFILE: 092N

AT A.R. 18022 REPORT YEAR: 1988, 23 Pages, 1 Map(s)

OPERATOR(S): **Berniolles, L.**
AUTHOR(S): Berniolles, L.
MINING DIV: Clinton
LOCATION: NTS 092N10E LAT. 51 31 00 LONG. 124 44 00
CLAIM(S): AT 3-4
EXPL. TARGET: Gold,Copper,Nickel
WORK DONE: PROS 800.0 ha - 1 Map(s); 1:5000
ROCK 46 sample(s);ME
GEOLOGY: Near the contact of Upper Cretaceous Coast Batholith and Triassic volcanics, copper-nickel-cobalt sulphides occur in zones of magmatic segregation within the batholith. In the Triassic volcanics, several veins and stockwork structures contain quartz-gold and copper mineralization.
RELATED A.R.: 16688
MINFILE: 092N 043

Loot A.R. 17392 REPORT YEAR: 1988, 35 Pages, 3 Map(s)

OPERATOR(S): **Equinox Res. Can. Orient Res.**
AUTHOR(S): Lammle, C.A.R. Culbert, R.R. Heberlein, K.
MINING DIV: Clinton
LOCATION: NTS 092N10E LAT. 51 33 06 LONG. 124 42 41
CLAIM(S): Loot 1-2
EXPL. TARGET: Gold
WORK DONE: FOTO 900.0 ha - 1 Map(s); 1:20 000
GEOL 900.0 ha - 1 Map(s); 1:10 000
ROCK 19 sample(s);ME - 1 Map(s); 1:10 000
SILT 10 sample(s);ME
GEOLOGY: Auriferous quartz veins are associated with a monzonite intrusive sill(?) in Middle Jurassic-Upper Cretaceous volcanic and sedimentary rocks of the Tyaughton Trough on the east flank of the Upper Cretaceous Coast Plutonic Complex.
MINFILE: 092N 047

Newmac A.R. 18036 REPORT YEAR: 1988, 72 Pages, 7 Map(s)

OPERATOR(S): **Jacqueline Gold**
AUTHOR(S): Morton, J.W. Garratt, G.L.
MINING DIV: Clinton
LOCATION: NTS 092N10E LAT. 51 44 00 LONG. 124 39 00
CLAIM(S): Newmac 2-3
EXPL. TARGET: Copper,Molybdenum/Molybdenite,Gold,Silver,Lead,Zinc
WORK DONE: DIAD 328.6 m 2 hole(s);NQ
GEOL 150.0 ha - 1 Map(s); 1:5000
IPOL 11.4 km - 5 Map(s); 1:2500,1:1250
ROCK 258 sample(s);ME

SOIL 268 sample(s);ME - 1 Map(s); 1:2500
GEOLOGY: Cretaceous volcanics, including andesite, basalt and rhyolite flows, are intruded by quartz feldspar porphyry, diorite, and feldspar porphyry. Mineralization consists of three types: 1) copper-gold porphyry and quartz-calcite fracture-controlled veinlets in an area of at least 1200 by 300 metres; 2) quartz-lead-zinc-gold-silver veins in an area 1 kilometre by 1 kilometre; 3) gold-arsenic-pyrite in a clay-altered and partly silicified shear zone exposed over 6 metres. The dominant structural features are north and east striking faults.
RELATED A.R.: 17080
MINFILE: 092N 030

Newmac A.R. 17080 REPORT YEAR: 1988, 71 Pages, 3 Map(s)

OPERATOR(S): **Jacqueline Gold**
AUTHOR(S): Morton, J.W. Chapman, J.A. Tregaskis, S.
MINING DIV: Clinton
LOCATION: NTS 092N10E, 092N15E LAT. 51 45 00 LONG. 124 40 00
CLAIM(S): Newmac,Newmac 1-3
EXPL. TARGET: Gold,Silver
WORK DONE: ROCK 139 sample(s);ME - 1 Map(s); 1:2000
SOIL 878 sample(s);ME - 2 Map(s); 1:5000,1:2000
GEOLOGY: Early Cretaceous volcanic and volcaniclastic rocks have been intruded by Late Cretaceous to Early Tertiary diorite plugs. Gold and silver values are associated with quartz-carbonate or quartz-manganese veins. A gold-copper occurrence in mafic volcanics may be related to a separate event.
MINFILE: 092N

J.J. A.R. 17858 REPORT YEAR: 1988, 17 Pages

OPERATOR(S): **Copeland, J.J.**
AUTHOR(S): Copeland, J.J.
MINING DIV: Clinton
LOCATION: NTS 092N10W LAT. 51 35 00 LONG. 124 47 00
CLAIM(S): J.J. I
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: PROS 50.0 ha
GEOLOGY: Core samples were taken from 1.5 metres deep holes and analysed for gold and silver. The samples were composed of chloritic-pyritic conglomerate, with sparsely disseminated sphalerite and chalcopyrite.
RELATED A.R.: 09575, 10654, 12691
MINFILE: 092N 019

Pine-Woods A.R. 17528 REPORT YEAR: 1988, 34 Pages, 1 Map(s)

OPERATOR(S): **Stowell, O.**
AUTHOR(S): Serack, M.L.
MINING DIV: Cariboo
LOCATION: NTS 092N14E LAT. 51 58 00 LONG. 125 12 00
CLAIM(S): Pine 1-4,Woods 1-8
EXPL. TARGET: Gold
WORK DONE: PETR 2 sample(s)
PROS 300.0 ha - 1 Map(s); 1:5000
ROCK 14 sample(s);ME
GEOLOGY: Fifteen-centimetre veins of arsenopyrite-pyrrhotite bearing values of gold cut microdioritic to dioritic intrusives along fracture systems. The veins are sub-horizontal and discontinuous.
MINFILE: 092N 033

TASEKO LAKES 092O

Edge A.R. 17366 REPORT YEAR: 1988, 215 Pages, 13 Map(s)

OPERATOR(S): **Brenwest Mining**
AUTHOR(S): Adamec, J.D.
MINING DIV: Clinton
LOCATION: NTS 092O01E LAT. 51 10 00 LONG. 122 08 00
CLAIM(S): Edge 1,Sheep 1-7
EXPL. TARGET: Gold,Silver,Arsenic,Mercury
WORK DONE: EMGR 49.5 km; VLF - 2 Map(s); 1:5000
GEOL 500.0 ha - 7 Map(s); 1:10 000,1:100
LINE 53.5 km - 1 Map(s); 1:5000
MAGG 49.5 km - 1 Map(s); 1:5000
ROCK 138 sample(s);AU,AG,AS,PB,ZN,SB,HG - 2 Map(s); 1:5000
TREN 144.0 m 15 trench(es)
GEOLOGY: The underlying rocks consist of Upper Cretaceous Kingsvale massive green, gray or buff andesite and purple or dark brown basalt. The younger Eocene volcanics consist mainly of creamy rhyolitic and dacitic tuff. Some andesitic and basaltic rocks also occur as well as polymictic breccia with volcanic arenite. Precious metals occur in epithermal brecciated quartz-carbonate veins. The veins contain pyrite, chalcopyrite and minor sphalerite or arsenopryrite. The veins generally strike worth and dip 54 degrees west to 40 degrees east.
RELATED A.R.: 16049
MINFILE: 092O 091

Graduation A.R. 17820 REPORT YEAR: 1988, 31 Pages, 1 Map(s)

OPERATOR(S): **Ashworth, C.E.**
AUTHOR(S): Stritychuk Hopkins, J.M. Yacoub, F.F.
MINING DIV: Clinton
LOCATION: NTS 092O01E LAT. 51 07 42 LONG. 122 10 43
CLAIM(S): Graduation
EXPL. TARGET: Gold
WORK DONE: SILT 20 sample(s);ME - 1 Map(s); 1:10 000
GEOLOGY: Lower Cretaceous Jackass Mountain Group sediments (greywacke, shale, pebble and massive boulder conglomerates) are overlain to the northeast of the claim by Quaternary deposits of till, gravel, sand, clay and silt.
MINFILE: 092O 055

Mad A.R. 16713 REPORT YEAR: 1987

OPERATOR(S): **Southern Gold Res.**
AUTHOR(S): Lisle, T.E.
MINING DIV: Clinton
LOCATION: NTS 092O01E LAT. 51 04 13 LONG. 122 07 48
CLAIM(S): Mad 2-4,Mad 9,Mad 11,Mad 13
WORK DONE: GEOL 20.0 ha
ROCK 152 sample(s);ME
SOIL 229 sample(s);ME
GEOLOGY: The Watson Bar Creek area is largely underlain by sedimentary rocks of the Cretaceous Jackass Mountain Group. Detailed mapping has shown the area to be intruded by a small stock(?) of granodiorite

and by a number of dykes and sills that includes quartz-feldspar porphyry, feldspar porphyry, andesite and lamprophyre.
RELATED A.R.: 11585, 13019, 13993

Mad A.R. 16823 REPORT YEAR: 1987, 49 Pages, 3 Map(s)

OPERATOR(S): **Southern Gold Res.**
AUTHOR(S): Lisle, T.E.
MINING DIV: Clinton
LOCATION: NTS 092O01E LAT. 51 04 13 LONG. 122 07 48
CLAIM(S): Mad 2-4,Mad 13
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 20.0 ha - 2 Map(s); 1:1000,1:100
ROCK 152 sample(s);ME - 1 Map(s); 1:100
SOIL 229 sample(s);ME
TREN 25.0 m 1 trench(es)
GEOLOGY: The Watson Bar Creek area is near the eastern margin of the Camelsfoot Range that is largely underlain by sedimentary rocks of the Early Cretaceous Jackass Mountain Group (volcanic-rich lithic wackes, shales and polymictic conglomerates). Watson Bar Creek follows a splay off the Yalokom Fault. Mineralization (gold,silver, arsenic) in the area is characteristic of low temperature epithermal deposits.
RELATED A.R.: 16713
MINFILE: 092O 092

Mad A.R. 17781 REPORT YEAR: 1988, 64 Pages

OPERATOR(S): **Canamin Res. Southern Gold Res.**
AUTHOR(S): Lisle, T.E.
MINING DIV: Clinton
LOCATION: NTS 092O01E LAT. 51 04 14 LONG. 122 06 04
CLAIM(S): Mad 2
EXPL. TARGET: Gold
WORK DONE: DIAD 672.1 m 3 hole(s);NQ
ROAD 0.4 km
ROCK 33 sample(s);ME
SAMP 132 sample(s);ME
GEOLOGY: The property is underlain by argillite, siltstone, sandstone and conglomerate of the Lower Cretaceous Jackass Mountain Group. The sedimentary assemblage is intruded by stocks, sills and dykes of feldspar porphyry and quartz-feldspar porphyry that are in places mineralized with pyrite and minor arsenopyrite. Gold is found at several localities and is commonly associated with arsenopyrite.
RELATED A.R.: 16713, 16823
MINFILE: 092O 092

Rouge A.R. 17953 REPORT YEAR: 1988, 119 Pages, 7 Map(s)

OPERATOR(S): **Kennedy River Gold**
AUTHOR(S): Leriche, P.D. Yacoub, F.F.
MINING DIV: Clinton
LOCATION: NTS 092O01E, 092O02W LAT. 51 12 00 LONG. 122 32 00
CLAIM(S): Rouge I-IV,China I-II
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 3000.0 ha - 1 Map(s); 1:10 000
PETR 11 sample(s)
ROCK 71 sample(s);ME
SILT 136 sample(s);ME - 1 Map(s); 1:10 000
SOIL 409 sample(s);ME - 5 Map(s); 1:2500
GEOLOGY: The property is underlain by a sequence of Eocene volcanic rocks ranging in composition from rhyolite to basalt. Silicified argillically altered rhyolites host anomalous values in gold.

Second A.R. 17473 REPORT YEAR: 1988, 74 Pages, 5 Map(s)

OPERATOR(S): **Cyprus Metals**
AUTHOR(S): McClintock, J.A. Durfeld, R.M.
MINING DIV: Clinton
LOCATION: NTS 092O01E LAT. 51 03 09 LONG. 122 03 36
CLAIM(S): Second 1-2,Second 4-5,Ulcer
EXPL. TARGET: Gold
WORK DONE: GEOL 506.0 ha - 1 Map(s); 1:5000
ROCK 17 sample(s);AU
SOIL 2500 sample(s);AU,AS,SB,HG,AG,ZN - 4 Map(s); 1:5000
GEOLOGY: The claims are underlain by siltstone, greywacke and conglomerates of the Lower Cretaceous Jackass Mountain Group which have been intruded by a stock of granodiorite and related dyke-like apophyses of feldspar porphyry. Within a broad area of carbonate and argillic alteration, six zones of intense silicification and argillic alteration were outlined. These zones of intense silicification have surface dimensions up to 1300 metres by 250 metres.
RELATED A.R.: 16666

Stirrup Creek A.R. 17840 REPORT YEAR: 1988, 35 Pages, 3 Map(s)

OPERATOR(S): **Cazador Ex.**
AUTHOR(S): Chapman, J.A. Boyde, M.W.
MINING DIV: Clinton
LOCATION: NTS 092O01E LAT. 51 06 00 LONG. 122 13 00
CLAIM(S): Stir,Sven,Stirrup
EXPL. TARGET: Gold
WORK DONE: ROAD 1.0 km
ROCK 35 sample(s);AU,HG,AS,SB,CU - 1 Map(s); 1:5000
SOIL 199 sample(s);AG,AS,SB,AU,HG - 2 Map(s); 1:5000
TREN 180.0 m
GEOLOGY: Greywacke belonging to the Jakcass Mountain Group is the predominant lithology. The Greywackes have been intruded by fine-grained dykes often porphyritic (plagiclase phenocrysts). Carbonate alteration of the sediments is a widespread phenomenon as is pyrite mineralization. The area also contains significant geochemical anomalies of mercury, arsenic, antimony and gold.
RELATED A.R.: 16287

Watson A.R. 17336 REPORT YEAR: 1987, 87 Pages, 4 Map(s)

OPERATOR(S): **Chevron Can. Res.**
AUTHOR(S): Lisle, T.E.
MINING DIV: Clinton
LOCATION: NTS 092O01E LAT. 51 08 07 LONG. 122 14 19
CLAIM(S): Last Chance,W 1-12
EXPL. TARGET: Gold
WORK DONE: DIAD 488.8 m 4 hole(s);NQ
GEOL 200.0 ha - 4 Map(s); 1:2500,1:500
SAMP 188 sample(s);ME
GEOLOGY: The claims cover an argillically altered sequence of Cretaceous clastic sediments and Tertiary intrusive dykes.

RELATED A.R.: 16303
MINFILE: 092O 054

Brent A.R. 17811 REPORT YEAR: 1988, 52 Pages, 4 Map(s)

OPERATOR(S): **Chevron Can. Res.**
AUTHOR(S): Lisle, T.E.
MINING DIV: Clinton
LOCATION: NTS 092O01W LAT. 51 08 00 LONG. 122 15 30
CLAIM(S): Sun,Shine,Brent
EXPL. TARGET: Gold,Arsenic
WORK DONE: EMGR 11.1 km;VLF - 2 Map(s); 1:2500
GEOL 300.0 ha - 1 Map(s); 1:2500
ROCK 7 sample(s);AU,ME
SOIL 317 sample(s);AU,ME - 1 Map(s); 1:2500

GEOLOGY: Sandstone and siltstone of the Early Cretaceous Jackass Mountains Group are intruded by sills and dykes of granodiorite that grade to feldspar and quartz feldspar porphyry. The intrusives are locally mineralized with pyrite and arsenopyrite. Narrow seams of stibnite locally flank the intrusives, and small siliceous stringer zones with stibnite are also present.

RELATED A.R.: 16303, 17336
MINFILE: 092O

Roderick Creek A.R. 17653 REPORT YEAR: 1988, 45 Pages, 2 Map(s)

OPERATOR(S): **Levelland Energy Res.**
AUTHOR(S): Cavey, G. Friz, P.C.
MINING DIV: Clinton
LOCATION: NTS 092O01W LAT. 51 09 00 LONG. 122 17 00
CLAIM(S): Rod,Rod 2
EXPL. TARGET: Gold
WORK DONE: ROCK 30 sample(s);ME - 1 Map(s); 1:10 000
SILT 5 sample(s);ME
SOIL 197 sample(s);ME - 1 Map(s); 1:10 000

GEOLOGY: The property is underlain by Lower Cretaceous greywacke of the Jackass Mountain Group. Minor disseminated pyrite, and iron oxides are present.

Poison Mountain A.R. 16938 REPORT YEAR: 1988, 130 Pages, 2 Map(s)

OPERATOR(S): **Lac Min.**
AUTHOR(S): So, Y.M.
MINING DIV: Clinton
LOCATION: NTS 092O02E LAT. 51 08 06 LONG. 122 36 46
CLAIM(S): Rex 205,Rex 208-209
EXPL. TARGET: Copper,Gold,Molybdenum/Molybdenite
WORK DONE: DIAD 19 hole(s);NDB - 2 Map(s); 1:1000
SAMP 479 sample(s);AU,CU,MO,AG

GEOLOGY: A Tertiary (Eocene?) porphyry complex is intruded into Lower Cretaceous sedimentary rocks. The major faults are west-northwest trending. Alteration includes potassic, phyllic, propylitic, supergene and intense biotization of mafic minerals. Ore zones are confined to a biotite hornblende porphyry near the contact with the sediments. Mineralization consists of disseminations, blebs and veinlets of pyrite, chalcopyrite, bornite and molybdenite.

MINFILE: 092O 046, 092O 047

Scarlet A.R. 16863 REPORT YEAR: 1988, 21 Pages, 3 Map(s)

OPERATOR(S): **Harlingten, H. Beban, C.**
AUTHOR(S): Hermary, R.G. White, G.E.
MINING DIV: Clinton
LOCATION: NTS 092O02E, 092O07E LAT. 51 14 27 LONG. 122 34 43
CLAIM(S): Scarlet,Stryker,Geode,Melinda
WORK DONE: EMAB 109.0 km;VLF - 2 Map(s); 1:10 000
MAGA 109.0 km - 1 Map(s); 1:10 000

GEOLOGY: The major structural feature in the area is a regional thrust fault, the Hungry Valley Fault, which strikes east across the centre of the claim group. To the north of this fault the claims are mapped as being underlain by an Oligocene and Lower Miocene unit of andesite and basalt tuff breccia with flows to the east. In the western portion, Eocene rhyolitic and dacitic tuff, breccia and flows are geologically mapped north of the thrust fault. To the south, sediments of interbedded siltstone and greywacke conglomerate predominate.

Eva A.R. 17331 REPORT YEAR: 1988, 51 Pages, 1 Map(s)

OPERATOR(S): **Millennium Res.**
AUTHOR(S): Macfarlane, H.S.
MINING DIV: Lillooet
LOCATION: NTS 092O02W LAT. 51 03 02 LONG. 122 55 56
CLAIM(S): Ave 1-6,Eva 2-6,Eva 11-12
EXPL. TARGET: Gold,Antimony
WORK DONE: GEOL 28.0 ha - 1 Map(s); 1:1000
HMIN 26 sample(s);AU,AG
ROCK 9 sample(s);AU,AG

GEOLOGY: The property lies within a complex sequence of Mesozoic rocks bounded by the Yalakom fault to the northeast and the Tchaikazan fault to the southwest. The centre of the property is bounded by Battlement Ridge Group sediments, flanked and faulted against Lower Cretaceous Taylor Creek Group rocks to the west. The Upper Triassic Hurley Formation is faulted to the west against the Taylor Creek Group. Tyaughton Group sediments of Upper Triassic-Lower Triassic age are present in the northwest of the property. A quartz-calcite-stibnite-gold vein was discovered in the northwest of the property.

RELATED A.R.: 16084
MINFILE: 092O

Eva A.R. 18056 REPORT YEAR: 1988, 45 Pages, 1 Map(s)

OPERATOR(S): **Millennium Res.**
AUTHOR(S): MacFarlane, H.S.
MINING DIV: Lillooet
LOCATION: NTS 092O02W LAT. 51 02 00 LONG. 122 50 00
CLAIM(S): Eva 3,Eva 5-6
EXPL. TARGET: Gold,Antimony
WORK DONE: DIAD 386.9 m; NDB - 1 Map(s); 1:1000
HMIN 6 sample(s);AU
SAMP 34 sample(s);AU,AG

GEOLOGY: The property lies within a complex sequence of Mesozoic rocks bounded by the Yalakom Fault to the northeast and the Tchaikazan Fault to the southwest. The centre of the property is bounded by Battlement Ridge Group sediments, flanked and faulted against Lower Cretaceous Taylor Creek rocks to the west. The Upper Triassic Hurley Formation is faulted to the west against the Taylor Creek

Group. Tyaughton Group sediments of Upper Triassic - Lower Triassic age are present in the northwest of the property. A quartz-calcite-stibnite-gold vein was discovered in the northwest of the property.
RELATED A.R.: 12496, 13709, 14932
MINFILE: 092O

Ruth A.R. 17242 REPORT YEAR: 1988, 16 Pages

OPERATOR(S): **British Lion Mines**
AUTHOR(S): Macfarlane, H.S.
MINING DIV: Clinton
LOCATION: NTS 092O02W LAT. 51 09 28 LONG. 122 46 09
CLAIM(S): Ruth
EXPL. TARGET: Gold
WORK DONE: HMIN 4 sample(s);AU,AG
GEOLOGY: The property lies within a complex sequence of Mesozoic rocks bounded to the northeast by the Yalakom fault and by the Tchaikazan fault to the southwest. In the area of the property the Lower Cretaceous Taylor Creek Group and the Upper Cretaceous Kingsvale Group infill the Tyaughton Trough.

Warner A.R. 17358 REPORT YEAR: 1987, 90 Pages, 9 Map(s)

OPERATOR(S): **IXL Res.**
AUTHOR(S): Hill, A.R. Jones, H.M.
MINING DIV: Lillooet
LOCATION: NTS 092O03E LAT. 51 03 05 LONG. 123 12 48
CLAIM(S): Warner 1-4
EXPL. TARGET: Silver,Copper,Gold
WORK DONE: GEOL 1500.0 ha - 3 Map(s); 1:5000,1:500
LINE 5.5 km
ROCK 155 sample(s);ME
SILT 70 sample(s);ME
SOIL 272 sample(s);ME - 6 Map(s); 1:5000,1:500
TREN 100.0 m 19 trench(es)
GEOLOGY: The property is underlain by a complexly folded and faulted package of andesitic and rhyolitic volcanic rocks of the Upper Cretaceous Kingsvale Group. The rocks are intruded by the Upper Cretaceous Coast Plutonic Complex and numerous related dykes, sills and plugs. A number of quartz veins geochemically anomalous in some or all of gold, silver, copper, lead and zinc and occasionally molybdenum and arsenic, occur in shear zones in the volcanics associated with moderate to strong sericite and clay alteration. Mineralization consists of freibergite, pyrite, minor sphalerite, cinnabar and stibnite.
RELATED A.R.: 08472, 13742, 14936
MINFILE: 092O 075, 092O 093

Taseko Joint Venture A.R. 17871 REPORT YEAR: 1988, 41 Pages, 3 Map(s)

OPERATOR(S): **Westmin Res.**
AUTHOR(S): Lane, R.
MINING DIV: Clinton
LOCATION: NTS 092O03W LAT. 51 07 05 LONG. 123 19 46
CLAIM(S): Bluff 2
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: DIAD 249.0 m 1 hole(s);HQ ,NQ - 3 Map(s); 1:10 000,1:500
SAMP 60 sample(s);ME
GEOLOGY: The property is located within the Intermontane Belt near the southwestern boundary of the Tyaughton Trough. The trough contains a thick sequence of Middle Jurassic to Upper Cretaceous marine to subaerial volcanic and sedimentary rocks. Granodiorite and porphyry intrusions of the Upper Cretaceous Coast Plutonic Complex bound the trough to the south in the vicinity of the Taseko property boundary. The property overlies part of a major 15 kilometre long northwest trending alteration system that overlaps the volcanic-intrusive contact. The alteration includes advanced argillic assemblages and hosts the former Taylor Windfall gold mine.
RELATED A.R.: 14902, 16309

Pellaire A.R. 16864 REPORT YEAR: 1987, 104 Pages, 1 Map(s)

OPERATOR(S): **Lord River Gold Mines Cathedral Gold**
AUTHOR(S): Holtby, M.H.
MINING DIV: Clinton
LOCATION: NTS 092O04E LAT. 51 06 16 LONG. 123 36 23
CLAIM(S): Hi 1,Hi 3-4
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 1335.1 m 12 hole(s);NQ
UNDV 48.8 m - 1 Map(s); 1:500
GEOLOGY: Six gold and silver-bearing friable quartz veins cut Upper Cretaceous Coast Plutonic Complex granodiorite and extend a short distance into adjacent Lower Cretaceous Taylor Creek Group metavolcanics. Quartz veins vary in width from 0.3 metres to 7.5 metres and are exposed for up to 225 metres strike length. The veins occur in shears that extend a considerable distance into the metavolcanics. Mineralization consists of pyrite and minor chalcopyrite; galena and hessite have been reported. The veins have strong and pervasive sericitized alteration envelopes.
MINFILE: 092O 045

Serac A.R. 17241 REPORT YEAR: 1987, 18 Pages

OPERATOR(S): **British Lion Mines**
AUTHOR(S): Macfarlane, H.S.
MINING DIV: Clinton
LOCATION: NTS 092O04E LAT. 51 06 25 LONG. 123 38 37
CLAIM(S): Serac 1-2
EXPL. TARGET: Gold
WORK DONE: HMIN 2 sample(s);AU,AG
ROCK 2 sample(s);AU,AG
GEOLOGY: The property lies within a complex sequence of Mesozoic rocks bounded to the northeast by the Yalakom fault and to the southwest by the Tchaikazan fault. Middle Triassic-Upper Cretaceous rocks were deposited in a long narrow subsiding trough, the Tyaughton Trough.

Tchaikazan A.R. 17038 REPORT YEAR: 1988, 50 Pages

OPERATOR(S): **Golden Pick Res.**
AUTHOR(S): Ricker, K. Burton, A.
MINING DIV: Clinton
LOCATION: NTS 092O04E LAT. 51 11 04 LONG. 123 40 18
CLAIM(S): Grin (L.7834),Wash (L.7831),Bear (L.7833),Cleanup (L.7832)
EXPL. TARGET: Gold,Silver,Copper,Molybdenum/Molybdenite
WORK DONE: GEOL 46.8 ha
ROAD 2.3 km

	ROCK 107 sample(s);ME
GEOLOGY:	Epithermal gold-silver telluride veins cutting Mesozoic volcanics and sediments have values in the range of 17.1-34.2 grams per tonne gold and 102.8-514.2 grams per tonne silver in mineralized shoots.
MINFILE:	092O 043

YHWH A.R. 16919 REPORT YEAR: 1988, 21 Pages, 1 Map(s)

OPERATOR(S):	**Lord River Gold Mines** **Cathedral Gold**
AUTHOR(S):	Quartermain, R.
MINING DIV:	Clinton
LOCATION:	NTS 092O04E LAT. 51 05 00 LONG. 123 40 00
CLAIM(S):	YHWH
EXPL. TARGET:	Gold,Silver,Copper,Molybdenum/Molybdenite
WORK DONE:	GEOL 120.0 ha - 1 Map(s); 1:5000 ROCK 5 sample(s);AU,AG SILT 5 sample(s);CU,MO,AU,AG SOIL 87 sample(s);CU,MO,AU,AG
GEOLOGY:	The claim is underlain by Late Cretaceous Coast Plutonic Complex granodiorite. An auriferous chalcopyrite and molybdenite-bearing shear 3 metres wide is exposed 160 metres along strike. Weakly anomalous gold values in soil samples were collected in the sheared area.

Zan A.R. 18059 REPORT YEAR: 1988, 84 Pages, 3 Map(s)

OPERATOR(S):	**New Global Res.**
AUTHOR(S):	Lennan, W.B.
MINING DIV:	Clinton
LOCATION:	NTS 092O04E LAT. 51 07 00 LONG. 123 43 00
CLAIM(S):	Zan 1-6
EXPL. TARGET:	Gold,Silver,Copper,Lead,Zinc
WORK DONE:	GEOL 5600.0 ha - 2 Map(s); 1:10 000,1:1000 ROCK 168 sample(s);AU,AG,AS,CU,SB,HG SOIL 304 sample(s);AU,AG,AS - 1 Map(s); 1:1000
GEOLOGY:	A volcaniclastic-sedimentary rock assemblage of Cretaceous age is intruded to the south and east by granodiorite and quartz diorites of the Coast Range Plutonic Complex. The volcanic-sedimentary units are structurally complicated by a series of northwest dextral shears with northeasterly splays. The volcanics are mainly dacitic in composition while the sediments range from siltstone to argillites. Structurally controlled quartz veins are related to fault zones near the intrusive contact. Realgar and orpiment-bearing veins crosscut volcanic units in north-trending fracture zones.
MINFILE:	092O

Rufous A.R. 16920 REPORT YEAR: 1988, 21 Pages, 2 Map(s)

OPERATOR(S):	**Lord River Gold Mines** **Cathedral Gold**
AUTHOR(S):	Spilsbury, T.
MINING DIV:	Clinton
LOCATION:	NTS 092O04W LAT. 51 07 00 LONG. 123 50 00
CLAIM(S):	Rufous 1-2
EXPL. TARGET:	Gold,Silver
WORK DONE:	GEOL 500.0 ha - 1 Map(s); 1:5000 ROCK 15 sample(s);AU,AG SILT 36 sample(s);AU,AG - 1 Map(s); 1:5000 SOIL 17 sample(s);AU,AG
GEOLOGY:	The claims are underlain by Early Cretaceous volcanics and sediments correlated possibly with the Mount Eurydice Formation or Lower Gambier Group and Taylor Creek Group. Only small shear zones with weak silicification and pyritization were found. One weakly anomalous (130 ppb gold) silt sample was found near the north Boundary of Rufous 1 claim.

Vic A.R. 16873 REPORT YEAR: 1987, 132 Pages, 7 Map(s)

OPERATOR(S):	**Kingsvale Res.**
AUTHOR(S):	Lalonde, C.
MINING DIV:	Clinton
LOCATION:	NTS 092O05E LAT. 51 22 36 LONG. 123 38 42
CLAIM(S):	Vic,Num I-IV
EXPL. TARGET:	Gold,Silver,Copper
WORK DONE:	GEOL 1140.0 ha - 2 Map(s); 1:5000,1:100 LINE 18.7 km ROAD 5.9 km SAMP 73 sample(s);AU,AG,CU SILT 14 sample(s);AU,CU SOIL 2291 sample(s);AU,CU - 2 Map(s); 1:5000,1:1000 TREN 335.0 m 11 trench(es) - 3 Map(s); 1:100
GEOLOGY:	The property is underlain by a thick sequence of Upper Cretaceous Kingsvale Group andesite and dacitic pyroclastics with minor andesite flows and volcanic sediments. Predominantly massive andesite autobreccias striking northwesterly with shallow dips to the west are intruded by narrow diorite dykes. Northeasterly striking quartz veins within shear zones carry gold, silver and copper mineralization.
RELATED A.R.:	12279, 13492, 13942, 14615, 15831
MINFILE:	092O 027

Dil A.R. 18007 REPORT YEAR: 1988, 24 Pages, 1 Map(s)

OPERATOR(S):	**Durfeld, R.M.**
AUTHOR(S):	McClintock, J.A.
MINING DIV:	Clinton
LOCATION:	NTS 092O06E, 092O06W LAT. 51 16 00 LONG. 123 15 00
CLAIM(S):	Dil 1-2
EXPL. TARGET:	Gold,Silver
WORK DONE:	ROCK 18 sample(s);AU,AG,SB,AS,HG,CU,PB,ZN SOIL 30 sample(s);AU,AG,HG,AS,SB,CU,PB,ZN - 1 Map(s); 1:8000
GEOLOGY:	Float rocks of banded and drusy quartz contain gold values up to 4600 ppb in an area of frost heaved felsenmeer. The bedrocks are presumed to be Cretaceous to Tertiary feldspar porphyry and Lower Cretaceous Taylor Creek siltstone, argillite and lesser greywacke.
RELATED A.R.:	16879

Dil A.R. 16879 REPORT YEAR: 1988, 11 Pages

OPERATOR(S):	**Durfeld, R.M.**
AUTHOR(S):	McClintock, J.A.
MINING DIV:	Clinton
LOCATION:	NTS 092O06W, 092O06E LAT. 51 15 48 LONG. 123 15 40
CLAIM(S):	Dil 1-2
EXPL. TARGET:	Gold
WORK DONE:	GEOL 500.0 ha
GEOLOGY:	Clastic sedimentary rocks of the Lower Cretaceous Taylor Creek Group are intruded by masses and dyke swarms of feldspar porphyry. Float of banded and vuggy quartz up to 50 centimetres thick are

widespread in areas of frost-heaved felsenmeer. Previous sampling of the quartz yielded values to greater than 2000 ppb gold.

Bobcat A.R. 18033 REPORT YEAR: 1988, 161 Pages, 4 Map(s)

OPERATOR(S): **Lexington Res.**
AUTHOR(S): Heine, T.H.
MINING DIV: Clinton
LOCATION: NTS 092O07E LAT. 51 17 00 LONG. 122 33 00
CLAIM(S): Bobcat I-III
EXPL. TARGET: Gold
WORK DONE: GEOL 0.3 ha
ROCK 1058 sample(s);AU,HG,AG
SOIL 980 sample(s);AU,HG,AG - 3 Map(s); 1:1000,1:2500
TREN 2579.5 m 15 trench(es) - 1 Map(s); 1:1500
GEOLOGY: Near Blackdome Mountain, the rocks are composed of ignimbrites and possible ash-flows and lapilli tuffs, as well as volcanic and debris flows, ranging in composition from andesitic to rhyolitic. The entire sequence has been correlated with the Kamloops Group. Unconformally capping the Eocene rocks are basalt flows of Early Miocene or Late Oligocene age.

Churn Creek A.R. 18130 REPORT YEAR: 1988, 116 Pages, 1 Map(s)

OPERATOR(S): **Blackdome Min.**
AUTHOR(S): Peatfield, G.R.
MINING DIV: Clinton
LOCATION: NTS 092O07E LAT. 51 22 00 LONG. 122 32 00
CLAIM(S): Borin I,King 3-4,Queen 4-5,Queen VI,Mint 1-3,Reborin,Ace 2,Swamp 2,Pearl
EXPL. TARGET: Gold
WORK DONE: LSUR 4200.0 km
ROCK 43 sample(s);ME
SOIL 3895 sample(s) - 1 Map(s); 1:5000
GEOLOGY: Cretaceous lavas and conglomerates, and Eocene volcanic rocks ranging in composition from rhyolite to basalt are overlain by Miocene basalt flows. The rhyolites and andesites are locally altered and veined with vuggy quartz. Chalcedonic silica is common but unmineralized. The geology is a continuation of that at the nearby Blackdome Mine.
RELATED A.R.: 12661, 16065

Geowest A.R. 17208 REPORT YEAR: 1988, 44 Pages, 5 Map(s)

OPERATOR(S): **Nexus Res.**
AUTHOR(S): Walker, J.E.
MINING DIV: Clinton
LOCATION: NTS 092O08W LAT. 51 27 00 LONG. 122 27 00
CLAIM(S): Geowest 1-4
EXPL. TARGET: Gold
WORK DONE: EMGR 1.8 km;VLF - 1 Map(s); 1:1000
HMIN 180 sample(s);ME - 1 Map(s); 1:1000
MAGG 3.0 km - 1 Map(s); 1:1000
SILT 24 sample(s);ME
SOIL 126 sample(s);ME - 2 Map(s); 1:10 000,1:1000
GEOLOGY: The property is primarly underlain by Eocene rhyolitic and dacitic volcanic rocks including flows, breccias and tuffs. Minor porphyritic or amygdaloidal andesites or basalts may also be present. The northern portion of the claims are underlain dy Upper Cretaceous Kingsvale Group conglomerates and greywackes.
RELATED A.R.: 13928

Geowest A.R. 18173 REPORT YEAR: 1988, 39 Pages, 9 Map(s)

OPERATOR(S): **Nexus Res.**
AUTHOR(S): Walker, J.E.
MINING DIV: Clinton
LOCATION: NTS 092O08W LAT. 51 27 00 LONG. 122 27 00
CLAIM(S): Geowest 4,Geowest 6-7
EXPL. TARGET: Gold
WORK DONE: EMGR 7.0 km;VLF - 2 Map(s); 1:2500
MAGG 7.0 km - 2 Map(s); 1:2500
ROCK 2 sample(s);ME - 1 Map(s); 1:10 000
SILT 16 sample(s);ME - 2 Map(s); 1:10 000
SOIL 109 sample(s);ME - 2 Map(s); 1:2500
GEOLOGY: The property is underlain by Upper Cretaceous Kingsvale Group. The area is covered, in part, by a thick layer of glacial till. Eocene volcanics host auriferous quartz veins.
RELATED A.R.: 13928, 17208

Lynx I A.R. 17498 REPORT YEAR: 1988, 23 Pages, 3 Map(s)

OPERATOR(S): **Transnational Marketing**
AUTHOR(S): Hermary, R.G. White, G.E.
MINING DIV: Clinton
LOCATION: NTS 092O08W LAT. 51 20 00 LONG. 122 24 00
CLAIM(S): Lynx I-II,Lynx 3
WORK DONE: EMAB 100.0 km;VLF - 2 Map(s); 1:10 000
MAGA 100.0 km - 1 Map(s); 1:10 000
GEOLOGY: The geology is taken from H.W. Tipper 1978 compilation of the Geological Survey of Canada open file map #534. The major structural feature in the area is a regional thrust fault, called the Hungry Valley Fault, and strikes east-west. The claims are geologically mapped as being underlain by Eocene rhyolotic and dacitic tuff, breccia and flows.

MJ A.R. 17983 REPORT YEAR: 1988, 17 Pages

OPERATOR(S): **Radcliffe Res.**
AUTHOR(S): Leishman, D.A.
MINING DIV: Clinton
LOCATION: NTS 092O08W LAT. 51 21 00 LONG. 122 27 00
CLAIM(S): MJ 1
EXPL. TARGET: Gold
WORK DONE: GEOL 200.0 ha
GEOLOGY: The claim is underlain by Eocene volcanics. Northeast structures have been interpreted within the claim group. Past work has indicated values up to 10 000 ppb gold in soils.
RELATED A.R.: 10867

Fame A.R. 17638 REPORT YEAR: 1988, 32 Pages, 1 Map(s)

OPERATOR(S): **Bowen, B.**
AUTHOR(S): Bowen, B.
MINING DIV: Clinton
LOCATION: NTS 092O10W LAT. 51 30 20 LONG. 122 45 20
CLAIM(S): **Fame 1**
EXPL. TARGET: Gold,Silver

WORK DONE: PROS 100.0 ha - 1 Map(s); 1:1000,1:10 000
ROCK 34 sample(s);ME

GEOLOGY: The property is underlain by bleached andesite and siliceous, vuggy vein breccia material. The vein breccia material carries high precious metal values. The mineralized rocks contain minor pyrite but no base metal material has been identified at present.

Newton
A.R. 18081 REPORT YEAR: 1988, 26 Pages

OPERATOR(S): **Durfeld, R.M.**
AUTHOR(S): Durfeld, R.M.
MINING DIV: Clinton
LOCATION: NTS 092O13E LAT. 51 48 00 LONG. 123 37 00
CLAIM(S): Newton 1
EXPL. TARGET: Gold,Copper
WORK DONE: ROCK 5 sample(s);AU,AG,AS,CU,PB,ZN,SB,HG
SAMP 129 sample(s);AU,AG,AS,CU,PB,ZN,SB,HG
SOIL 82 sample(s);AU,AG,AS,CU,PB,ZN,SB,HG

GEOLOGY: Middle Jurassic intrusives and volcanics and Upper Cretaceous clastics are intruded by felsic rocks of Eocene age. The economic potential for this area is gold-copper mineralization associated with the felsic intrusives and hydrothermal alteration.

BONAPARTE RIVER 092P

Skull
A.R. 17471 REPORT YEAR: 1988, 33 Pages, 1 Map(s)

OPERATOR(S): **Hayes, T.**
AUTHOR(S): Cope, G.R.
MINING DIV: Kamloops
LOCATION: NTS 092P01E, 092P01W LAT. 51 08 49 LONG. 120 15 31
CLAIM(S): Skull 2-4
EXPL. TARGET: Silver,Copper,Molybdenum/Molybdenite,Lead
WORK DONE: GEOL 2025.0 ha - 1 Map(s); 1:10 000
ROCK 22 sample(s);ME

GEOLOGY: The property is predominantly underlain by Permo-Pennsylvanian Cache Creek Group rocks which have been invaded by numerous intrusive bodies including the Thuya Batholith. Rocks on the property are weakly metamorphosed and chloritized. Pyritic quartzite float contains weakly anomalous silver, lead and molybdenum concentrations.

MINFILE: 092P 102

Bonaparte
A.R. 17904 REPORT YEAR: 1988, 300 Pages, 7 Map(s)

OPERATOR(S): **Gabriel Res.**
AUTHOR(S): Gourlay, A.W.
MINING DIV: Kamloops
LOCATION: NTS 092P01W LAT. 51 00 30 LONG. 120 23 00
CLAIM(S): Bob 22-23
EXPL. TARGET: Gold
WORK DONE: EMGR 89.5 km; VLF - 1 Map(s); 1:10 000
GEOL 840.0 ha - 2 Map(s); 1:10 000
LINE 94.5 km
MAGG 62.3 km - 1 Map(s); 1:10 000
ROCK 41 sample(s);ME - 1 Map(s); 1:10 000
SOIL 4000 sample(s);AU - 2 Map(s); 1:10 000

GEOLOGY: Argillaceous metasedimentary rocks, metamorphosed volcanic rocks, and bedded greywacke and arkose form the basement rocks. The argillaceous rocks have been intruded by hornblende diorite, resulting in hornfels contact zones, high ground formed by basaltic to andesitic lavas, breccias and tuffs. The hornblende diorite has been cut by late stage quartz veins that carry pyrite, chalcopyrite and rare values of gold.

RELATED A.R.: 16137
MINFILE: 092P 159

Bonaparte
A.R. 17762 REPORT YEAR: 1988, 161 Pages, 3 Map(s)

OPERATOR(S): **Gabriel Res.**
AUTHOR(S): Gourlay, A.W.
MINING DIV: Kamloops
LOCATION: NTS 092P01W LAT. 51 01 00 LONG. 120 26 00
CLAIM(S): Nubob 1
EXPL. TARGET: Gold
WORK DONE: EMGR 21.0 km; VLF - 2 Map(s); 1:10 000
MAGG 21.0 km - 1 Map(s); 1:10 000

GEOLOGY: Argillaceous metasedimentary rocks, metamorphosed volcanic rocks, and bedded greywacke and arkose comprise the basement. The argillaceous metasedimentary rocks have been intruded by hornblende diorite resulting in hornfelsed contact zones. High ground is formed by basaltic to andesitic lavas, breccias, and tuffs. The hornblende diorite has been cut by late stage quartz veins that carry pyrite, chalcopyrite, and gold values.

RELATED A.R.: 13908, 15166, 15651, 15757, 16045, 17206
MINFILE: 092P 050

Bonaparte
A.R. 17206 REPORT YEAR: 1988, 380 Pages, 31 Map(s)

OPERATOR(S): **Hughes-Lang**
AUTHOR(S): Gosse, R.R.
MINING DIV: Kamloops
LOCATION: NTS 092P01W LAT. 51 00 30 LONG. 120 26 00
CLAIM(S): Nubob 1
EXPL. TARGET: Gold
WORK DONE: DIAD 1874.0 m 24 hole(s); NQ - 25 Map(s); 1:500,1:250
PETR 10 sample(s)
SAMP 777 sample(s);ME,AU
TREN 504.0 m 25 trench(es) - 6 Map(s); 1:500,1:40

GEOLOGY: A series of Mesozoic or Paleozoic pelitic and argillaceous strata have been cut and hornfelsed by a Mesozoic quartz diorite stock and dyke swarm. Both intrusive rocks and hornfels are cut by numerous quartz veins to 2 metres wide with highly anomalous gold values. Veins carry pyrite, chalcopyrite, pyrrhotite, molybdenite, and lesser amounts of tellurides and free gold.

RELATED A.R.: 13908, 15166, 15651, 15757, 16045
MINFILE: 092P 050

Flow
A.R. 17333 REPORT YEAR: 1987, 29 Pages, 2 Map(s)

OPERATOR(S): **Gallant Gold Mines**
AUTHOR(S): McClintock, J.A.
MINING DIV: Kamloops
LOCATION: NTS 092P02E LAT. 51 04 58 LONG. 120 30 28
CLAIM(S): Flow 3,Au 1-3,Rhyolite 1-3,Lode
EXPL. TARGET: Gold
WORK DONE: GEOL 400.0 ha - 2 Map(s); 1:25 000,1:10 000

HMIN 2 sample(s);AU
SOIL 90 sample(s);AU,AG,CU

GEOLOGY: Lowermost argillaceous metasedimentary rocks have been intruded by hornblende diorite correlated with Thuya-Takomkane intrusions. Contact zones are hornfelsed. Biotite quartz monzonite of similar age is found in the northern portion of the claims. The high ground is capped by Miocene basaltic to andesitic lavas, breccias, and tuff. Hornblende diorite is cut by late stage quartz veins that carry pyrite, chalcopyrite and rarely geochemically anomalous gold.

Epi A.R. 17810 REPORT YEAR: 1988, 74 Pages, 8 Map(s)

OPERATOR(S): **Can. Nickel**
AUTHOR(S): Morin, J.A.
MINING DIV: Clinton
LOCATION: NTS 092P02W LAT. 51 08 55 LONG. 120 52 13
CLAIM(S): Yard 1-2,Epi 2-3
EXPL. TARGET: Gold
WORK DONE: GEOL 200.0 ha - 1 Map(s); 1:5000
LINE 25.9 km - 2 Map(s); 1:250 000,1:10 000
ROCK 17 sample(s);ME - 1 Map(s); 1:5000
SOIL 961 sample(s);ME - 4 Map(s); 1:5000

GEOLOGY: Upper Triassic andesitic tuff of the Nicola Group is intruded by granitic rocks of the Triassic-Jurassic Thuya Batholith suite and overlain by local accumulations of a chalcedonic siliceous cap (probably Cretaceous) and by Eocene sedimentary and volcanic rocks. Northerly and easterly trending faults and shear zones cut the Nicola Group volcanics and host zones of carbonatization and silicification cut by minor quartz +/-chalcopyrite veins.

RELATED A.R.: 16286
MINFILE: 092P

Mow A.R. 18167 REPORT YEAR: 1988, 85 Pages, 10 Map(s)

OPERATOR(S): **Iron River Res.**
AUTHOR(S): Bristow, J.F. Hendrickson, G.A.
MINING DIV: Kamloops
LOCATION: NTS 092P02W LAT. 51 02 00 LONG. 120 53 00
CLAIM(S): Mow 1
EXPL. TARGET: Copper,Silver,Gold
WORK DONE: EMGR 8.2 km;VLF - 5 Map(s); 1:2000
LINE 8.2 km
MAGG 8.2 km - 5 Map(s); 1:2000

GEOLOGY: The area is underlain by Triassic age Nicola Group volcanics and sediments. The Nicola rocks strike northerly and dip both east and west. The Deadman River Fault crosses the area. Clasts of chalcocite carrying gold and silver are associated with serpentinite occur in the overburden.

RELATED A.R.: 12022, 13432
MINFILE: 092P 156

Tip A.R. 16926 REPORT YEAR: 1988, 12 Pages, 2 Map(s)

OPERATOR(S): **Dickens, M.**
AUTHOR(S): Dickens, M.
MINING DIV: Clinton
LOCATION: NTS 092P02W, 092P02E LAT. 51 11 00 LONG. 120 45 00
CLAIM(S): Tip 1,Tip 3
EXPL. TARGET: Gold,Molybdenum/Molybdenite
WORK DONE: PROS 800.0 ha - 2 Map(s); 1:31 680,1:800
TREN 30.0 m 2 trench(es)

GEOLOGY: Quartz stockworks with anomalous values in gold and molybdenum occur in altered granodiorite of the Thuye Batholith that has been intruded by a rhyolite porphyry.

Vidette Lake A.R. 17179 REPORT YEAR: 1988, 36 Pages

OPERATOR(S): **Menika Min.** **Lakewood Min.** **Green Valley Mine**
AUTHOR(S): Morris, R.J.
MINING DIV: Clinton
LOCATION: NTS 092P02W LAT. 51 08 48 LONG. 120 52 48
CLAIM(S): Clinton 1
EXPL. TARGET: Gold,Copper
WORK DONE: DIAD 685.8 m 3 hole(s);NQ
SAMP 69 sample(s);ME

GEOLOGY: Upper Triassic Nicola Group greenstone and related intrusives host quartz veins. The veins are fissure-filling, narrow and carry pyrite, chalcopyrite and local telluride mineralization. Two important intercepts to date, 0.6 and 0.3 metres wide, carry 2940 and 4375 ppb gold respectively.

RELATED A.R.: 10893, 11854
MINFILE: 092P 088

Westmo-Eastmo A.R. 17319 REPORT YEAR: 1988, 19 Pages, 4 Map(s)

OPERATOR(S): **Menika Min.**
AUTHOR(S): LaRue, J.P.
MINING DIV: Kamloops
LOCATION: NTS 092P02W LAT. 51 03 36 LONG. 120 58 51
CLAIM(S): Mo 1-2
EXPL. TARGET: Copper,Gold
WORK DONE: IPOL 23.5 km - 4 Map(s); 1:5000
LINE 23.5 km

GEOLOGY: The claims appear to be underlain by plateau lavas, olivine basalt, basalt-andesite, related ash and breccia beds and basaltic arenite, all of Tertiary age.

CM A.R. 18039 REPORT YEAR: 1988, 84 Pages, 7 Map(s)

OPERATOR(S): **Skylark Res.**
AUTHOR(S): Farmer, R.
MINING DIV: Kamloops
LOCATION: NTS 092P08E LAT. 51 18 00 LONG. 120 07 00
CLAIM(S): CM 2-3
EXPL. TARGET: Copper,Zinc,Silver,Gold
WORK DONE: DIAD 610.2 m 6 hole(s);NQ - 7 Map(s); 1:5000
SAMP 78 sample(s);ME

GEOLOGY: The CM claims are underlain by a north-northwest striking, steeply east dipping sequence of mafic volcanics and sediments of the Permian Fennell Formation. The sediments are host to two small massive sulphide occurrences consisting of pyrite, chalcopyrite and magnetite as exposed in old trenches.

MINFILE: 092P 101

Chu Chua A.R. 16812 REPORT YEAR: 1987, 54 Pages, 3 Map(s)

OPERATOR(S): **Minnova**
AUTHOR(S): Pirie, I.D. Gray, M.J.
MINING DIV: Kamloops
LOCATION: NTS 092P08E LAT. 51 22 42 LONG. 120 04 00
CLAIM(S): CC 2,CC 7,CC 9,CC 11
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold,Cobalt
WORK DONE: DIAD 852.2 m 6 hole(s);NQ - 3 Map(s); 1:2500
SAMP 97 sample(s);ME

GEOLOGY: The property is underlain by steeply dipping, north striking Devonian-Permian Fennell Formation volcanic and sedimentary rocks. Mineralization on the property includes the Chu Chua massive sulphide deposit (2 million tonnes grading 2 per cent copper). The Chu Chua deposit is a tabular body that dips steeply to the west. The enclosing rocks are basaltic flows and tuffites.

RELATED A.R.: 07110, 07443, 07499, 08496, 09623, 10940, 10957, 10958, 12884, 14186, 14187, 15385, 15717
MINFILE: 092P 140

Golden Loon A.R. 17342 REPORT YEAR: 1988, 50 Pages, 3 Map(s)

OPERATOR(S): **Mineta Res.**
AUTHOR(S): Wells, R.C.
MINING DIV: Kamloops
LOCATION: NTS 092P08E, 092P08W LAT. 51 26 12 LONG. 120 16 54
CLAIM(S): Golden Loon I-IV,Golden Loon VI-IX
EXPL. TARGET: Gold,Silver
WORK DONE: LINE 34.6 km
ROCK 18 sample(s);AU,AG,PT,PD
SILT 70 sample(s);AU,AG,PT,PD
SOIL 548 sample(s);AU,AG,PT,PD - 3 Map(s); 1:10 000

GEOLOGY: The property lies on the northern edge of the Thuya Batholith (granodiorite). A large ultramafic body trending northwesterly cuts northerly trending Upper Triassic Nicola Group volcanics and sediments. The ultramafic body is possibly differentiated with potential for PGE mineralization. Vein gold-silver mineralization occurs at the margins of the ultramafic body. Epithermal style gold, silver, and copper mineralization occurs on the Golden Loon VII.

RELATED A.R.: 15870

Windpass A.R. 16764 REPORT YEAR: 1987

OPERATOR(S): **Kerr Addison Mines**
AUTHOR(S): Coyle, T.
MINING DIV: Kamloops
LOCATION: NTS 092P08E LAT. 51 26 33 LONG. 120 04 45
CLAIM(S): Lots 1619-1621,Lot 3521,Lots 3523-3524,Lots 3839-3840,Lots 3842-3844,Lot 3971,Lots 3974-3976, Lots 3979-3980
WORK DONE: DIAD 2016.0 m 11 hole(s);NQ
GEOL 400.0 ha
LINE 56.3 km
MAGG 56.3 km
ROCK 603 sample(s);AU,BI,CO,TE,AG
SAMP 490 sample(s);AU,BI,CO,TE
TREN 3800.0 m 20 trench(es)

GEOLOGY: The property straddles the thrust contact between the upper or western structural devision and the lower or eastern structural division of the Devonian-Permian Fennell Formation. To the east of this contact, an extensive diorite sill, which is the host for gold mineralization, occupies the core of the property.

RELATED A.R.: 00329, 04261

Cedar A.R. 17709 REPORT YEAR: 1988, 21 Pages, 1 Map(s)

OPERATOR(S): **Comox Res.**
AUTHOR(S): Sayer, C.J.
MINING DIV: Kamloops
LOCATION: NTS 092P08W LAT. 51 29 30 LONG. 120 17 00
CLAIM(S): Cedar 7-18
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: PROS 125.0 ha - 1 Map(s); 1:2000

GEOLOGY: Andesitic volcanics and sediments of the Triassic Nicola Group are in fault contact with argillites and volcanics of the Permian Eagle Bay Formation. Along the north-northwest trending fault are zones of massive pyrite and chalcopyrite which carry elevated gold values. Small gold bearing skarns occur in other areas in and around the property.

RELATED A.R.: 14477, 16362

Axel A.R. 17622 REPORT YEAR: 1988, 33 Pages, 1 Map(s)

OPERATOR(S): **New Global Res.**
AUTHOR(S): Shearer, J.T.
MINING DIV: Kamloops
LOCATION: NTS 092P09E LAT. 51 33 00 LONG. 120 03 00
CLAIM(S): Axel One
EXPL. TARGET: Gold
WORK DONE: PROS 500.0 ha 51 ;CU,ZN,AG,BA,AU - 1 Map(s); 1:10 000

GEOLOGY: The claim covers an intense, pyritic altered zone hosted by an angular, coarse clastic volcanic breccia-conglomerate within the lower Fennell Formation of Paleozoic age. Soil sampling gave anomalous values in gold up to 65 ppb gold. The subcrop of the breccia-conglomerate appears to be indicated by high barium values.

Bogg A.R. 17968 REPORT YEAR: 1988, 29 Pages, 10 Map(s)

OPERATOR(S): **Geotech Capital**
AUTHOR(S): Mark, D.G. Cruickshank, P.
MINING DIV: Kamloops
LOCATION: NTS 092P09E, 092P10W LAT. 51 37 00 LONG. 120 32 00
CLAIM(S): Bogg 9-12
EXPL. TARGET: Copper,Lead,Silver,Gold
WORK DONE: IPOL 5.8 km - 10 Map(s); 1:1000,1:2500

GEOLOGY: The property is underlain by Upper Triassic Nicola Group volcanic rocks, with a second unit of intrusives of Upper Triassic or lower Jurassic age. Mineralization occurs as pyrite, chalcopyrite, galena and silver along shear zones in altered volcanic rocks. No gold mineralization has so far been found on the property, though very strong gold soil geochemistry anomalies have been located.

MINFILE: 092P 007

HC A.R. 16973 REPORT YEAR: 1988, 93 Pages, 1 Map(s)

OPERATOR(S): **Lancer Res.**
AUTHOR(S): Rebagliati, C.M.
MINING DIV: Kamloops
LOCATION: NTS 092P09W LAT. 51 33 54 LONG. 120 21 36
CLAIM(S): HC 1
EXPL. TARGET: Lead,Zinc,Copper
WORK DONE: LINE 69.5 km
SOIL 1449 sample(s);ME - 1 Map(s); 1:2500
GEOLOGY: Upper Triassic (Takla Group?) Nicola Group basalt flows, fragmentals and greywackes are hosts to northwest trending quartz-carbonate veins hosting pyrite, sphalerite, galena, chalcopyrite and tetrahedrite. Wide carbonate alteration zones are associated with the veining.
RELATED A.R.: 12101
MINFILE: 092P 137

HC A.R. 17967 REPORT YEAR: 1988, 92 Pages

OPERATOR(S): **Lancer Res.**
AUTHOR(S): Rebagliati, C.M.
MINING DIV: Kamloops
LOCATION: NTS 092P09W LAT. 51 34 00 LONG. 120 21 00
CLAIM(S): HC 1
EXPL. TARGET: Gold,Copper
WORK DONE: DIAD 710.8 m 8 hole(s);NQ
GEOLOGY: Jurassic volcanic and sedimentary strata are cut by several northwest striking faults. At some localities carbonate quartz veins up to 5.6 metres wide occupy the structures. In other areas mafic volcanic units are pervasively iron carbonate-mariposite altered and siltstones are silicified along the northwest structures. Near the centre of the HC 2 claim porphyry-type copper mineralization in volcanic units have been cut by an iron carbonate altered structure. Precious metal (gold and silver) values are closely associated with quartz stringers and veining.
MINFILE: 092P

Haida Gold A.R. 17733 REPORT YEAR: 1988, 64 Pages, 8 Map(s)

OPERATOR(S): **Vital Pacific Res.**
AUTHOR(S): Rachel, E.R.
MINING DIV: Kamloops
LOCATION: NTS 092P09W LAT. 51 31 45 LONG. 120 23 00
CLAIM(S): Fort 7,Fort 9,Tun 1,Nuf 1
EXPL. TARGET: Gold,Copper
WORK DONE: EMGR 1.8 km;VLF - 1 Map(s); 1:1000
IPOL 5.8 km - 6 Map(s); 1:500,1:1000,1:1500
MAGG 1.8 km - 1 Map(s); 1:1000
GEOLOGY: The property is underlain by Triassic volcanic and sedimentary rocks which are hornfelsed and locally converted to magnetite-pyrrhotite skarns and contain erratic gold values.
MINFILE: 092P 010, 092P 136

Haida Gold A.R. 18078 REPORT YEAR: 1988, 98 Pages

OPERATOR(S): **Vital Pacific Res.**
AUTHOR(S): Westerman, C.J.
MINING DIV: Kamloops
LOCATION: NTS 092P09W LAT. 51 31 45 LONG. 120 23 00
CLAIM(S): Fort 7,Fort 9,Tun 1
EXPL. TARGET: Gold,Copper
WORK DONE: DIAD 985.3 m 10 hole(s);NQ
SAMP 532 sample(s);CU,PB,ZN,AG,AS,SB
GEOLOGY: The propert is underlain by Triassic volcanic and sedimentary rocks which are hornfelsed and locally converted to magnetite-pyrrhotite skarns and contain erratic gold values.
RELATED A.R.: 17733
MINFILE: 092P 010, 092P 136

Ta Hoola A.R. 17737 REPORT YEAR: 1988, 166 Pages

OPERATOR(S): **Rat Res. SMD Min.**
AUTHOR(S): Rebagliati, C.M.
MINING DIV: Kamloops
LOCATION: NTS 092P09W LAT. 51 32 56 LONG. 120 20 27
CLAIM(S): Ta Hoola 9,Silver 2-3,Rock Island
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: SOIL 552 sample(s);ME
GEOLOGY: Vein, stockwork and disseminated sulphides carry gold, silver, copper, lead and zinc values within carbonate altered fault structures cutting Triassic and Jurassic mafic volcanic and interbedded sedimentary strata.
RELATED A.R.: 12101, 16973

OID A.R. 17853 REPORT YEAR: 1988, 9 Pages

OPERATOR(S): **Pautler, J.**
AUTHOR(S): Pautler, J.
MINING DIV: Clinton
LOCATION: NTS 092P10W LAT. 51 31 30 LONG. 120 59 30
CLAIM(S): OID

CONFIDENTIAL STATUS

Dora A.R. 18166 REPORT YEAR: 1988, 19 Pages, 5 Map(s)

OPERATOR(S): **Lac La Hache Gold**
AUTHOR(S): White, G.E.
MINING DIV: Clinton
LOCATION: NTS 092P14E LAT. 51 59 00 LONG. 121 15 30
CLAIM(S): Dora 4-5
EXPL. TARGET: Copper,Gold
WORK DONE: EMGR 80.0 km;VLF - 3 Map(s); 1:5000
MAGG 80.0 km - 2 Map(s); 1:5000
GEOLOGY: Triassic Nicola volcanics consisting of augite, andesite flows and breccias, tuff, argillite, greywacke, and limestone underly the prpoerty. The Triassic to Jurassic Takomkane batholith lies to the east.

Tim A.R. 17960 REPORT YEAR: 1988, 25 Pages, 6 Map(s)

OPERATOR(S): **Liberty Gold Res.**
AUTHOR(S): White, G.E.
MINING DIV: Clinton
LOCATION: NTS 092P14E LAT. 51 56 00 LONG. 121 15 20
CLAIM(S): Tim,Tim 1-2
EXPL. TARGET: Copper,Silver,Gold
WORK DONE: EMGR 115.0 km;VLF - 4 Map(s); 1:5000
MAGG 115.0 km - 2 Map(s); 1:5000
GEOLOGY: The property is situated near the eastern edge of the Intermontane Belt. Alkalic stocks composed of diorite monzonite and syenite intrude into Nicola volcanics. Copper, silver and gold mineralization were indicated in earlier drilling.
RELATED A.R.: 04030, 08831, 11280, 12192
MINFILE: 092P

Ann A.R. 17831 REPORT YEAR: 1988, 29 Pages, 7 Map(s)

OPERATOR(S): **Hemingson Gold**
AUTHOR(S): White, G.E.
MINING DIV: Clinton
LOCATION: NTS 092P14W LAT. 51 57 59 LONG. 121 18 18
CLAIM(S): Ann 1-2
EXPL. TARGET: Copper,Gold,Silver,Zinc
WORK DONE: EMGR 115.0 km;VLF - 2 Map(s); 1:5000
LINE 120.0 km
MAGG 115.0 km - 2 Map(s); 1:5000
SOIL 2200 sample(s);AU,AG,CU - 3 Map(s); 1:5000
GEOLOGY: The property lies on the edge of magnetic alkalic stocks and dykes. The eastern half of the property is underlain by the Takomkane Batholith while the western half is underlain by andesite and breccia flows.
MINFILE: 092P 002, 092P 034, 092P 035, 092P 115

Diane A.R. 17776 REPORT YEAR: 1988, 26 Pages, 2 Map(s)

OPERATOR(S): **Beachview Res.**
AUTHOR(S): White, G.E.
MINING DIV: Cariboo
LOCATION: NTS 092P14W, 093A03W LAT. 52 00 00 LONG [illegible] 21 27 00
CLAIM(S): Diane 3-4
EXPL. TARGET: Copper,Gold
WORK DONE: EMGR 80.0 km; VLF - 1 Map(s); 1:5000
LINE 80.0 km
MAGG 80.0 km - 1 Map(s); 1:5000
GEOLOGY: The property is underlain by glacial till, Tertiary basalts and sedimentary rocks, Nicola volcanics and alkali intrusives. Copper and gold mineralization occurs in propylitized andesites southeast of the property.

Dora A.R. 18148 REPORT YEAR: 1988, 27 Pages, 9 Map(s)

OPERATOR(S): **Peach Lake Res.**
AUTHOR(S): White, G.E.
MINING DIV: Clinton
LOCATION: NTS 092P14W LAT. 51 59 00 LONG. 121 24 00
CLAIM(S): Dora 1-3,Peewee 1-3,Club 15
EXPL. TARGET: Copper,Gold
WORK DONE: EMGR 115.0 km;VLF - 2 Map(s); 1:5000
MAGG 11[illegible]0 km - 2 Map(s); 1:5000
SOIL 1600 sample(s);AU,AG,CU,PB,ZN - 5 Map(s); 1:5000
GEOLOGY: The property is underlain by magnetite rich alkalic stocks and dykes which intrude into Nicola volcanics. Copper-gold mineralization is associated with skarn.
MINFILE: 092P 108, 092P 120

IQ A.R. 17034 REPORT YEAR: 1987, 30 Pages, 1 Map(s)

OPERATOR(S): **Huntex**
AUTHOR(S): Vohra, D.
MINING DIV: Kamloops
LOCATION: NTS 092P15E LAT. 51 58 18 LONG. 120 31 48
CLAIM(S): IQ 1,IQ 82-83,IQ 94
EXPL. TARGET: Gold,Molybdenum/Molybdenite
WORK DONE: EMGR 4.8 km;M-M
MAGG 4.8 km - 1 Map(s); 1:12 500
GEOLOGY: The study area appears to be underlain by argillites of the Quesnel terrane. Gold and molybdenite are the common economic minerals in the area.
RELATED A.R.: 04138, 04769

J.R. A.R. 17511 REPORT YEAR: 1988, 9 Pages, 6 Map(s)

OPERATOR(S): **Seel, R.**
AUTHOR(S): Seel, V.
MINING DIV: Clinton
LOCATION: NTS 092P15E LAT. 51 59 00 LONG. 120 37 00
CLAIM(S): J.R. 1-2
EXPL. TARGET: Silver,Zinc
WORK DONE: SOIL 48 sample(s);CU,PB,ZN,AG,AS,AU - 6 Map(s); 1:2000
GEOLOGY: Pyrite and other unidentified sulphides occur in a black aphanitic(?) volcanic rock. The volcanic rock also exhibits some silicification.

Lost Dutchman Mine A.R. 17317 REPORT YEAR: 1987, 19 Pages

OPERATOR(S): **Lutjen, J.A.**
AUTHOR(S): Lutjen, L.D. Lutjen, J.A.
MINING DIV: Kamloops
LOCATION: NTS 092P15E, 092P16W LAT. 51 50 31 LONG. 120 30 00
CLAIM(S): Lost Dutchman Mine
EXPL. TARGET: Zinc,Copper,Lead,Gold,Silver
WORK DONE: LINE 1.8 km
SOIL 69 sample(s);ME
GEOLOGY: The claim covers the contact area of Upper Triassic Nicola Group black shale, argillite, phyllite and black limestone with Devonian-Permian Fennell Formation greenstone facies and Baldy Batholith granodiorite.

Senicar A.R. 17590 REPORT YEAR: 1988, 17 Pages, 6 Map(s)

OPERATOR(S): **Eastfield Res.**
AUTHOR(S): Morton, J.W.
MINING DIV: Clinton

LOCATION: NTS 092P15W LAT. 51 55 00 LONG. 120 48 25
CLAIM(S): Senicar 1,S 1
WORK DONE: IPOL 13.0 km - 6 Map(s); 1:2500,1:1250
GEOLOGY: Jurassic age clastic sediments and mafic flows have been intruded by gabbro and diorite stocks. Hornfelsed zones and northwest trending shears occur in both the mafic flows and the sediments. Gold, arsenic and copper soil anomalies occur in association with chargeability and resistivity anomalies.
RELATED A.R.: 12650, 13230, 14040, 15450, 16199

Caro A.R. 17148 REPORT YEAR: 1988, 32 Pages, 10 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Wild, C.J. Bradish, L.
MINING DIV: Kamloops
LOCATION: NTS 092P16W LAT. 51 45 18 LONG. 120 19 48
CLAIM(S): Caro 1-7
EXPL. TARGET: Zinc
WORK DONE: GEOL 112.0 ha - 1 Map(s); 1:2500
LINE 12.0 km
MAGG 10.9 km - 1 Map(s); 1:2500
SOIL 437 sample(s);CU,PB,ZN,AG,AU,AS - 8 Map(s); 1:2500
GEOLOGY: The claims are underlain by steep southerly dipping siltstones and argillites of the Devonian-Permian Fennell Formation which have been intruded by Cretaceous Raft Batholith granodiorite. The sediments host local occurrences of up to 10 per cent disseminated pyrite and trace chalcopyrite.
RELATED A.R.: 15349

Redfern A.R. 18017 REPORT YEAR: 1988, 35 Pages

OPERATOR(S): **Ridley, D.W.**
AUTHOR(S): Ridley, D.W.
MINING DIV: Cariboo
LOCATION: NTS 093A01W LAT. 52 01 00 LONG. 120 24 00
CLAIM(S): Redfern 1-8
EXPL. TARGET: Lead,Silver
WORK DONE: LINE 2.8 km
PROS 200.0 ha
ROCK 20 sample(s);ME
SILT 10 sample(s);ME
SOIL 146 sample(s);ME
GEOLOGY: Northwest trending Lower Cambrian metasedimentary rocks of the Snowshoe Formation are overlain by Upper Triassic Nicola Group black phyllites. At or near the contact are quartz veins that strike northeast. Quartz float rocks carry galena-pyrite mineralization.

Rec A.R. 17646 REPORT YEAR: 1988, 16 Pages

OPERATOR(S): **Durfeld Geol.**
AUTHOR(S): Durfeld, R.M.
MINING DIV: Cariboo
LOCATION: NTS 093A02E LAT. 52 01 00 LONG. 120 34 00
CLAIM(S): Rec,LK 1-2
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 25.0 ha
ROCK 13 sample(s);ME
GEOLOGY: The property is underlain by foliated argillaceous rocks, which are cut by milky quartz veins up to 2 metres thick. Quartz-sulphide samples taken from old workings contain up to 620 grams of silver per tonne, and 3.23 grams of gold per tonne.
MINFILE: 093A

Moly A.R. 17072 REPORT YEAR: 1988, 35 Pages, 4 Map(s)

OPERATOR(S): **Circle Res.**
AUTHOR(S): Fraser, B.M.
MINING DIV: Cariboo
LOCATION: NTS 093A02W LAT. 52 13 00 LONG. 120 59 00
CLAIM(S): Moly
EXPL. TARGET: Gold
WORK DONE: LINE 17.0 km
ROCK 15 sample(s);ME - 1 Map(s); 1:5000
SILT 13 sample(s);AG,AS,CU,PB,ZN,SB
SOIL 383 sample(s);AG,AS,CU,PB,ZN,SB - 3 Map(s); 1:5000
GEOLOGY: The contact between the northwest edge of the Takomkane Batholith and Takla volcanics is obscured by glacial till. Anomalous values of gold were obtained from stream and soil geochemistry.

Shelby A.R. 18192 REPORT YEAR: 1988, 33 Pages, 3 Map(s)

OPERATOR(S): **Tide Res.**
AUTHOR(S): Wood, D.V.
MINING DIV: Cariboo
LOCATION: NTS 093A03W LAT. 52 04 00 LONG. 121 25 00
CLAIM(S): Diane 1-2,Heather 1-4,Lacy 1-4,Shelby 1-4,Jake 1-4,Terry 1-4,Tom 1-4,Vanna 1-4,Duke 1-3
EXPL. TARGET: Copper,Gold
WORK DONE: EMAB 1377.0 km;VLF - 2 Map(s); 1:20 000
MAGA 1377.0 km - 1 Map(s); 1:20 000
GEOLOGY: Most of the property is covered by Quaternary glacial deposits in the northeast and Tertiary Plateau basalts in the southwest. Upper Triassic andesite augite porphyries, argillite, conglomerates and limestones of the Nicola Group have been mapped in the vicinity of Vanna and Shelby claims. Hornblende monzonites of the Lower Jurassic Takomkane Batholith are noted north of Spout Lake.
MINFILE: 093A 063

Woodjam A.R. 17480 REPORT YEAR: 1988, 49 Pages, 2 Map(s)

OPERATOR(S): **Circle Res.**
AUTHOR(S): Kahlert, B.
MINING DIV: Cariboo
LOCATION: NTS 093A03W LAT. 52 13 00 LONG. 121 18 00
CLAIM(S): Wood 1-3
EXPL. TARGET: Gold
WORK DONE: LINE 33.0 km
ROCK 6 sample(s);ME
SOIL 531 sample(s);AU,AG,AS,SB,CU,PB,ZN - 2 Map(s); 1:5000
GEOLOGY: The claims are underlain in part by the Takomkane Batholith of granodiorite composition, and in part by the Quesnellia terrane volcanic-sedimentary units.
RELATED A.R.: 12479

Astra A.R. 16885 REPORT YEAR: 1987, 14 Pages

OPERATOR(S): **Glacier Res.**
AUTHOR(S): Murton, J.W.
MINING DIV: Cariboo
LOCATION: NTS 093A05W, 093A12W LAT. 52 30 00 LONG. 121 48 00
CLAIM(S): Astra 1
WORK DONE: SOIL 132 sample(s);CU,ZN,AS,MO,SB,AU
GEOLOGY: Upper Triassic volcanics of the Quesnel Trough are intruded by granitic, quartz monzonite and syenite stocks.
RELATED A.R.: 14421

Solomon A.R. 17485 REPORT YEAR: 1988, 48 Pages, 2 Map(s)

OPERATOR(S): **Circle Res.**
AUTHOR(S): Kahlert, B.
MINING DIV: Cariboo
LOCATION: NTS 093A05W LAT. 52 20 00 LONG. 121 49 00
CLAIM(S): Solomon
EXPL. TARGET: Gold,Copper
WORK DONE: LINE 23.0 km
ROCK 12 sample(s);ME
SOIL 441 sample(s);AU,AG,AS,SB,CU,PB,ZN - 2 Map(s); 1:5000
GEOLOGY: The northeast part of the claims is underlain by Quesnellia volcanic-sedimentary rocks, and the southwest part is underlain by sedimentary rocks of the Cache Creek Group. These rocks are possibly divided by the Pinchi Fault. Coincident silver, copper and zinc anomalies on the Solomon claim are promising.

Beekeeper A.R. 17047 REPORT YEAR: 1988, 54 Pages, 3 Map(s)

OPERATOR(S): **Lornex Min.**
AUTHOR(S): Laird, B. Cann, R.M.
MINING DIV: Cariboo
LOCATION: NTS 093A06W LAT. 52 23 42 LONG. 121 20 24
CLAIM(S): Beekeeper 1
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 506.0 m 3 hole(s); NQ - 1 Map(s); 1:500
GEOL 100.0 ha - 1 Map(s); 1:5000
SAMP 236 sample(s);ME
SOIL 353 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: Subaqueous porphyritic and amygdaloidal basalt flows and breccias have been intruded by an easterly extension of the alkalic Kwun Lake stock. Weakly anomalous gold values occur in pyritic pyroxene porphyry basalt which has been variably epidotized and potassium-feldspar flooded.
RELATED A.R.: 09750, 12805, 14599, 15048, 16153

Kwun A.R. 18055 REPORT YEAR: 1988, 27 Pages, 1 Map(s)

OPERATOR(S): **Placer Dome**
AUTHOR(S): Fox, P.E.
MINING DIV: Cariboo
LOCATION: NTS 093A06W LAT. 52 24 00 LONG. 121 21 00
CLAIM(S): Kwun 3-4
EXPL. TARGET: Gold
WORK DONE: PERD 769.9 m 7 hole(s) - 1 Map(s); 1:5000
SAMP 256 sample(s);AU
GEOLOGY: Pyritic volcanic breccias enclose a small diorite stock containing trace amounts of gold and copper.
RELATED A.R.: 09925
MINFILE: 093A 077

Lea A.R. 17647 REPORT YEAR: 1988, 13 Pages

OPERATOR(S): **Durfeld, R.M.**
AUTHOR(S):
MINING DIV: Cariboo
LOCATION: NTS 093A06W LAT. 52 26 00 LONG. 121 23 00
CLAIM(S): Lea
EXPL. TARGET: Copper,Gold
WORK DONE: PROS 250.0 ha
SILT 7 sample(s);ME
GEOLOGY: The Lea property is underlain by Triassic to Jurassic alkalic volcanic rocks and their derived sediments, which are intruded by monzonite. The mineral potential in this area [illegible]r intrusive contact gold-copper deposits similar to the "Q[illegible]osits 60 kilometres to the northwest.

Megabuck A.R. 16717 REPORT YEAR: 1987

OPERATOR(S): **Archer, Cathro & Assoc.**
AUTHOR(S): Main, C. Hendrickson, G.A.
MINING DIV: Cariboo
LOCATION: NTS 093A06W, 093A03W LAT. 52 15 30 LONG. 121 22 48
CLAIM(S): LS 1,LP,Megabuck,MB 1,Ravioli 3
WORK DONE: EMGR 80.0 km;VLF
IPOL 80.0 km
LINE 80.0 km
MAGG 80.0 km
GEOLOGY: The exploration target is disseminated coppe[illegible] mineralization associated with intrusive activity. T[illegible]ty is largely covered with glacial derived overburden, quite [illegible] in thickness.
RELATED A.R.: 04766, 05237, 05311, 05548, 05731, 11379, 123[illegible]

Redgold A.R. 17645 [illegible]T YEAR: 1988, 16 Pages, 1 Map(s)

OPERATOR(S): **Durfeld, R.M. Morton, J.W.**
AUTHOR(S): Durfeld, R.M.
MINING DIV: Cariboo
LOCATION: NTS 093A06W LAT. 52 27 30 LONG. 121 27 00
CLAIM(S): Shik 1-2
EXPL. TARGET: Gold,Copper
WORK DONE: GEOL 200.0 ha - 1 Map(s); 1:1000
LINE 16.0 km
GEOLOGY: The Redgold property is underlain by Triassic-Jurassic Takla Group submarine alkalic volcanics and derived sediments, which are intruded by monzonitic to dioritic rocks of the Shiko Lake stock. Propylitic alteration of epidote and chlorite with pyrite and chalcopyrite is related to the intrusion, and often shows elevated gold values.
RELATED A.R.: 11297, 11623, 12584, 13355, 13804, 14870, 16093, 17047
MINFILE: 093A 152

Crooked Lake A.R. 17903 REPORT YEAR: 1988, 108 Pages

OPERATOR(S): **Inter Can. Dev.**
AUTHOR(S): Allen, D.G. Brownlee, D.J.
MINING DIV: Cariboo
LOCATION: NTS 093A07E LAT. 52 15 00 LONG. 120 45 00
CLAIM(S): Bluto 1-3,Keg,Kit
WORK DONE: EMGR 22.8 km;VLF
LINE 25.0 km
MAGG 24.5 km
ROCK 4 sample(s);ME
SOIL 468 sample(s);ME
GEOLOGY: There are seven lithological units on the property comprising micaceous quartzites, grey silty slates, phyllite and graphitic phyllite (Bloodgood, 1987). The property is underlain on the east by the metavolcanic rocks of the Crooked Lake amphibolite of Mississippian to Permian age. The primary target is semi-conformable stratabound gold mineralization hosted by sedimentary and volcanic rocks. Bedding trends north-northeast and dips steeply to the east.
RELATED A.R.: 13241

Forks A.R. 16961 REPORT YEAR: 1988, 63 Pages, 2 Map(s)

OPERATOR(S): **Armada Gold and Min.**
AUTHOR(S): Howard, D.A.
MINING DIV: Cariboo
LOCATION: NTS 093A07E, 093A07W LAT. 52 22 54 LONG. 120 43 18
CLAIM(S): Forks 1-4,AR 1-2,Tep 1-3
EXPL. TARGET: Gold
WORK DONE: GEOL 4275.0 ha - 1 Map(s); 1:10 000

LINE 33.7
ROCK 2 sample(s);AU
SILT 33 sample(s);ME
SOIL 935 sample(s);ME - 1 Map(s); 1:5000

GEOLOGY: The property is underlain by a complex suite of black phyllites, tuffs and sediments that have been assigned Middle-Late Triassic age. Structurally, the property covers a segment of the northeast limb of the Eureka Syncline. Gold mineralization (fine gold) is associated with stratabound quartz beds or veins that occur in a distinctive porphyroblastic unit within the black phyllite package.

MINFILE: 093A

Frasergold A.R. 17746 REPORT YEAR: 1988, 55 Pages, 5 Map(s)

OPERATOR(S): **Sirius Res.** **Southlands Min.**
AUTHOR(S): Rowan, L.G.
MINING DIV: Cariboo
LOCATION: NTS 093A07E LAT. 52 19 00 LONG. 120 35 00
CLAIM(S): Mac,Mac 10
EXPL. TARGET: Gold
WORK DONE:
ROAD 1.5 km
ROTD 183.7 m 2 hole(s) - 3 Map(s); 1:5000,1:250
SAMP 122 sample(s);AU
TREN 200.0 m 2 trench(es) - 2 Map(s); 1:50 000,1:5000

GEOLOGY: Quartz veining is very common in porphyroblastic phyllites of the Quesnel River Group. The pyritic and possibly auriferous veins are mainly short and pinch out along bedding, cleavage, and fracture planes.

RELATED A.R.: 08325, 09751, 11833, 12880, 14022, 15636, 15715, 16765
MINFILE: 093A 150

Frasergold A.R. 16765 REPORT YEAR: 1987

OPERATOR(S): **Southlands Min.**
AUTHOR(S): Campbell, K.V. MacKean, B.E. Leishman, D.A.
MINING DIV: Cariboo
LOCATION: NTS 093A07E LAT. 52 18 14 LONG. 120 34 20
CLAIM(S): Kay 10-11
WORK DONE:
ROAD 2.0 km
ROCK 95 sample(s);AU
ROTD 1710.0 m 21 hole(s)
SAMP 139 sample(s);AU
TREN 660.0 m 8 trench(es)

GEOLOGY: Quartz veins, which host gold mineralization occur in the basal section of a lustrous, porphyroblastic phyllite. These rocks, which lie on the upright, southwesterly dipping limb of the Eureka syncline, have been locally deformed into asymmetric drag folds. Subsequent rotation of the folds by an axial plane crenulation cleavage produced minor folds which plunge slightly northwest of the earlier drag folds. It is in quartz-filled fold hinges of the youngest structures that gold is thought to be concentrated.

RELATED A.R.: 08325, 09751, 11833, 12880, 14022, 15636, 15715

Kusk A.R. 16987 REPORT YEAR: 1987, 56 Pages, 2 Map(s)

OPERATOR(S): **Nirvana Oil & Gas**
AUTHOR(S): Hajek, J.H.
MINING DIV: Cariboo
LOCATION: NTS 093A07E LAT. 52 16 00 LONG. 120 33 00
CLAIM(S): Kusk 3-7
EXPL. TARGET: Gold,Silver
WORK DONE:
GEOL 500.0 ha - 1 Map(s); 1:10 000
ROCK 68 sample(s);ME - 1 Map(s); 1:10 000
SILT 23 sample(s);ME

GEOLOGY: A large zone of low grade gold-silver mineralization occurs in a sequence of Triassic phyllite-schists. The host rocks contain carboneceous knotts alternating with quartz veins and boudins.

RELATED A.R.: 10786, 11593, 14050

Kusk A.R. 18025 REPORT YEAR: 1988, 50 Pages, 1 Map(s)

OPERATOR(S): **Nu Crown Res.** **Getchell Res.** **O'Neil, J.J.**
AUTHOR(S): Belik, G.
MINING DIV: Cariboo
LOCATION: NTS 093A07E LAT. 52 16 00 LONG. 120 33 00
CLAIM(S): Kusk A,Kusk 5
EXPL. TARGET: Gold
WORK DONE:
PERD 609.6 m 8 hole(s) - 1 Map(s); 1:10 000
ROAD 2.5 km
SAMP 192 sample(s);AU

GEOLOGY: Upper Triassic black phyllite sequence hosts stratabound zone of low grade gold mineralization, 6.1 metres to 8.08 metres wide. The zone, which has been traced for 550 metres, occurs near the top of a sequence characterized by the pressence of calcareous phyllite and argillaceous limestone interbeds.

RELATED A.R.: 10786, 11593, 14050, 16987

Mac A.R. 16917 REPORT YEAR: 1987, 18 Pages, 1 Map(s)

OPERATOR(S): **Eureka Res.**
AUTHOR(S):
MINING DIV: Cariboo
LOCATION: NTS 093A07E LAT. 52 21 00 LONG. 120 40 00
CLAIM(S): Mac 10
EXPL. TARGET: Gold
WORK DONE:
LINE 9.5 km
SOIL 374 sample(s);AU - 1 Map(s); 1:5000

GEOLOGY: A basal unit of Triassic black phyllites carrying gold values is projected along strike from the adjoining Frasergold property onto the Mac 10 claim. Scattered anomalous gold values in soil have been found on the Mac 10 claim on the strike projection of the gold bearing phyllites. Further work is planned.

RELATED A.R.: 15778

Toppergold A.R. 17989 REPORT YEAR: 1988, 38 Pages

OPERATOR(S): **World Cement Ind.**
AUTHOR(S): Symonds, D.F.
MINING DIV: Cariboo
LOCATION: NTS 093A07E LAT. 52 18 00 LONG. 120 43 00
CLAIM(S): Topper,Topper 4-5
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE:
HMIN 20 sample(s);AU,AG,PB,ZN,CU
SOIL 19 sample(s);AU,AG,PB,ZN,CU

GEOLOGY: The property is underlain by Upper Triassic phyllites, schists and argillites of the Quesnel River Group. Trace values of gold and silver occur in quartz sweats and veins within the sedimentary rocks.

Galena and sphalerite have been reported. Soil geochemistry shows significant multielement anomalies.

Crooked Lake A.R. 16947 REPORT YEAR: 1988, 47 Pages

OPERATOR(S): **Stewart, D.J.**
AUTHOR(S): Brownlee, D.J.
MINING DIV: Cariboo
LOCATION: NTS 093A07W LAT. 52 15 48 LONG. 120 45 48
CLAIM(S): Bluto 1-2
EXPL. TARGET: Gold
WORK DONE: EMGR 6.8 km;VLF
MAGG 7.8 km
SOIL 168 sample(s);ME
GEOLOGY: The property is underlain by Upper Triassic black phyllite and argillite and is bounded on the west by Upper Triassic andesite-basalt, tuff and breccia. To the east, the phyllite and argillite is bounded by the Mississippian Slide Mountain Group. These rocks form the western limb of the Crooked Lake anticline.
RELATED A.R.: 16263

Dor A.R. 17905 REPORT YEAR: 1988, 25 Pages

OPERATOR(S): **Eureka Res.**
AUTHOR(S): Leishman, D.A.
MINING DIV: Cariboo
LOCATION: NTS 093A07W LAT. 52 17 30 LONG. 120 57 00
CLAIM(S): Dor 2
EXPL. TARGET: Gold
WORK DONE: SAMP 27 sample(s);AU
TREN 150.0 m 2 trench(es)
GEOLOGY: A quartz diorite stock intrudes Triassic volcanic and sedimentary rocks which are locally altered and pyritic. Gold values in bedrock coincide with a geochemical soil anomaly; values range up to 69 grams of gold per tonne.
RELATED A.R.: 10118, 11905, 13172
MINFILE: 093A 117, 093A 149

Dor A.R. 17089 REPORT YEAR: 1988, 50 Pages, 3 Map(s)

OPERATOR(S): **Eureka Res.**
AUTHOR(S): Campbell, K.V.
MINING DIV: Cariboo
LOCATION: NTS 093A07W LAT. 52 18 00 LONG. 120 57 00
CLAIM(S): Dor 1
EXPL. TARGET: Gold
WORK DONE: GEOL 15.0 ha - 1 Map(s); 1:1000
MNGR 6 sample(s)
PETR 20 sample(s)
ROCK 20 sample(s);ME - 1 Map(s); 1:1000
SOIL 32 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: The claims are underlain by northeasterly dipping Triassic-Jurassic andesitic volcanic rocks and argillite intruded by an early Jurassic(?) plug of quartz diorite north of Doreen Lake. Massive, locally gold-bearing pyrrhotite occurs in east-west shear zones. Argillites are hornfelsed and along with andesitic rocks are silicified.
RELATED A.R.: 10118, 11905, 13172
MINFILE: 093A 117

Jamboree A.R. 17215 REPORT YEAR: 1988, 55 Pages, 6 Map(s)

OPERATOR(S): **Imperial Metals**
AUTHOR(S): Gorc, D.M.
MINING DIV: Cariboo
LOCATION: NTS 093A07W LAT. 52 17 17 LONG. 120 50 17
CLAIM(S): Jamboree 5,Jamboree 7-10,Jamboree 12-15
EXPL. TARGET: Gold
WORK DONE: ROCK 7 sample(s);ME
SOIL 847 sample(s);ME - 6 Map(s); 1:20 000,1:2500
GEOLOGY: Mesozoic volcanic flows are sandwiched between volcaniclastic sediments. This package dips to the northeast. The basal sedimentary unit has been intruded by a dioritic stock causing local hornfelsing. Moderate regional metamorphism has converted some of the sediments to phyllites. Gold is concentrated in east-west shear zones.
RELATED A.R.: 10263, 10980, 11382
MINFILE: 093A 149

Jamboree A.R. 17902 REPORT YEAR: 1988, 23 Pages, 3 Map(s)

OPERATOR(S): **Imperial Metals**
AUTHOR(S): Gorc, D.M.
MINING DIV: Cariboo
LOCATION: NTS 093A07W LAT. 52 15 00 LONG. 120 50 00
CLAIM(S): Jamboree 1-18
EXPL. TARGET: Gold
WORK DONE: IPOL 12.1 km - 3 Map(s); 1:1250,1:2500
GEOLOGY: Mesozoic volcanic flows are sandwiched between volcaniclastic sediments. This package dips to the northeast. The basal sedimentary unit has been intruded by a dioritic stock causing local hornfelsing. Moderate regional metamorphism has converted some of the sediments to phyllites. Gold is concentrated in east-west shear zones.
RELATED A.R.: 16233, 17812
MINFILE: 093A 149

Jamboree A.R. 17812 REPORT YEAR: 1988, 29 Pages, 2 Map(s)

OPERATOR(S): **Imperial Metals**
AUTHOR(S): Gorc, D.M.
MINING DIV: Cariboo
LOCATION: NTS 093A07W LAT. 52 18 54 LONG. 120 52 44
CLAIM(S): Jamboree 1,Jamboree 3-4
EXPL. TARGET: Gold
WORK DONE: LINE 11.2 km
SOIL 158 sample(s);ME - 2 Map(s); 1:2500
GEOLOGY: Mesozoic volcanic flows are sandwiched between volcaniclastic sediments. This package dips to the northeast. The basal sedimentary unit has been intruded by a dioritic stock causing local hornfelsing. Moderate regional metamorphism has converted some of the sediments to phyllites. Gold is concentrated in east trending shear zones.
RELATED A.R.: 16233, 17902
MINFILE: 093A 149

B.B. A.R. 17751 REPORT YEAR: 1988, 12 Pages

OPERATOR(S): **Matherly, M.**
AUTHOR(S): Matherly, M.
MINING DIV: Cariboo
LOCATION: NTS 093A11W LAT. 52 37 30 LONG. 121 22 30
CLAIM(S): B.B.
EXPL. TARGET: Gold,Silver,Copper,Molybdenum/Molybdenite,Lead,Zinc
WORK DONE: PROS 450.0 ha
GEOLOGY: The recent marine volcanics are defined for 3000 metres east and west and up to 500 metres north along the southern portion of the claim. The remainder of the property is Upper Triassic sediments. The gold, silver and copper mineralization is found in the phyllite sequence along shear zones associated with the volcanic-phyllite contact.

Duck A.R. 17254 REPORT YEAR: 1988, 92 Pages, 5 Map(s)

OPERATOR(S): **Gibraltar Mines**
AUTHOR(S): Bysouth, G.D. Barker, G.E.
MINING DIV: Cariboo
LOCATION: NTS 093A11W, 093A14W LAT. 52 45 00 LONG. 121 29 03
CLAIM(S): Duck,Duck 2,Duck 5,Duck 7
EXPL. TARGET: Copper,Gold,Silver
WORK DONE: SOIL 1179 sample(s);CU,PB,ZN,AG,AU - 5 Map(s); 1:6000
GEOLOGY: The property is mainly underlain by metasedimentary rocks of the Hadrynian Snowshoe Group and granitic gneiss of the Devonian-Mississippian(?) Quesnel Lake Gneiss Unit. Pyrite accompanied in places by chalcopyrite occurs as strong disseminations and massive lenses in dark grey phyllites of the Snowshoe Group. Pyrite, chalcopyrite, galena and sphalerite occur in quartz veins cutting the phyllite.

Duck A.R. 17426 REPORT YEAR: 1988, 22 Pages, 2 Map(s)

OPERATOR(S): **Gibraltar Mines**
AUTHOR(S): Bysouth, G.D. Barker, G.E.
MINING DIV: Cariboo
LOCATION: NTS 093A11W LAT. 52 43 30 LONG. 121 29 00
CLAIM(S): Duck 3-4,Duck 8
WORK DONE: EMGR 5.5 km;VLF - 2 Map(s); 1:5000
GEOLOGY: The Duck property is underlain mainly by metasedimentary rocks of the Hadrynian Snowshoe Group and granitic gneiss of the Devonian-Mississippian? Quesnel Lake gneiss unit. Pyrite accompanied in places by chalcopyrite occurs as strong disseminations and massive lenses in dark grey phyllites of the Snowshoe Group. Pyrite, chalcopyrite, galena and sphalerite occur in quartz veins cutting the phyllite.

Hobson A.R. 17912 REPORT YEAR: 1988, 17 Pages, 3 Map(s)

OPERATOR(S): **Paterson, S. Matherly, M.**
AUTHOR(S): Paterson, S. Matherly, M.
MINING DIV: Cariboo
LOCATION: NTS 093A11W LAT. 52 36 30 LONG. 121 18 00
CLAIM(S): Hobson 1-2,Ted
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: PROS 1500.0 ha - 3 Map(s); 1:5000
GEOLOGY: Shearing and faulting has occurred throughout the area. The Triassic sediment sequence consisting of graphitic black phyllites and chlorite rich greenstone carry minor mineralization in shear quartz veining and quartz ankerite lens. A recent marine volcanic breccia unit has been defined showing pyrite mineralization.

Nov A.R. 17103 REPORT YEAR: 1988, 96 Pages, 5 Map(s)

OPERATOR(S): **Malcolm Res.**
AUTHOR(S): Croft, S.A.S.
MINING DIV: Cariboo
LOCATION: NTS 093A11W LAT. 52 38 00 LONG. 121 29 00
CLAIM(S): Nov 1-3,Sun Fr.
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 12.4 km; VLF - 2 Map(s); 1:5000
LINE 14.0 km
SAMP 27 sample(s);AU,AG,PB,ZN,SR
SOIL 574 sample(s);ME - 3 Map(s); 1:5000
TREN 150.0 m 10 trench(es)
GEOLOGY: The claims are underlain by rocks of an unnamed black phyllite unit which forms the basal sequence of the Quesnel terrane. Characteristically, the dark-grey graphitic phyllite is complexly deformed, and, particularly near the top of the sequence, contains numerous tuffaceous sedimentary horizons. Quartz veining with associated gold bearing galena mineralization is known to occur within fractured and deformed horizons within the phyllite.
RELATED A.R.: 11773, 13306
MINFILE: 093A 132

Nov A.R. 17942 REPORT YEAR: 1988, 65 Pages, 4 Map(s)

OPERATOR(S): **Malcolm Res.**
AUTHOR(S): Croft, S.A.S.
MINING DIV: Cariboo
LOCATION: NTS 093A11W LAT. 52 38 00 LONG. 121 29 00
CLAIM(S): Nov 2
EXPL. TARGET: Gold
WORK DONE: DIAD 345.6 m 3 hole(s);NQ - 4 Map(s); 1:200,1:1000
SAMP 59 sample(s);AU,ME
GEOLOGY: The claims are underlain by rocks of an unnamed black phyllite unit which forms the basal sequence of the Quesnel terrane. Characteristically, the dark-grey graphitic phyllite is complexly deformed, and, particularly near the top of the sequence, contains numerous tuffaceous sedimentary horizons. Quartz veining with associated gold bearing galena mineralization is known to occur within fractured and deformed horizons within the phyllite.
RELATED A.R.: 17103
MINFILE: 093A 132

Spanish Mountain A.R. 17636 REPORT YEAR: 1988, 1175 Pages, 37 Map(s)

OPERATOR(S): **Pundata Gold**
AUTHOR(S): Campbell, K.V. Honsinger, E.G.
MINING DIV: Cariboo
LOCATION: NTS 093A11W LAT. 52 35 17 LONG. 121 27 43
CLAIM(S): CPW,Peso,Don
EXPL. TARGET: Gold

WORK DONE: DIAD 4510.0 m 37 hole(s);HQ ,NQ - 11 Map(s); 1:2500,1:500,1:200
GEOL 100.0 ha - 1 Map(s); 1:2000
META 11 sample(s)
PERD 848.0 m 15 hole(s)
PETR 50 sample(s)
SAMP 5[illegible]0 sample(s);AU,AG,AS - 2 Map(s); 1:2000,1:1250
SILT [illegible] sample(s);AU,AG,AS
SOIL 1[illegible] sample(s);AU,AG,AS - 4 Map(s); 1:50 000,1:5000,1:1000
TREN 8[illegible] m 34 trench(es) - 19 Map(s); 1:50,1:25,1:20

GEOLOGY: The c[illegible]ms are underlain by Middle Triassic to Early Jurassic fine-grained volcaniclastic and sedimentary rocks, which are part of the northeast limb of a northwest trending anticline. Silicification including silica flooding and quartz veining is a common feature. Gold occurs in quartz veins and stockworks in oxidized shaley siltstones and as disseminations in graphitic shaley siltstone.

MINFILE: 093A 043

Ban A.R. 17468 REPORT YEAR: 1988, 36 Pages

OPERATOR(S): Cedarmine Res.
AUTHOR(S): Cook, R.A. Gunn, R.C.M.
MINING DIV: Cariboo
LOCATION: NTS 093A12E LAT. 52 35 10 LONG. 121 31 20
CLAIM(S): Ban 1-2
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: IPOL 1.6 km
LINE 1.6 km
PERD 202.7 m 3 hole(s)
SAMP 203 sample(s);AU,AG,CU,PB,ZN

GEOLOGY: Gold and base metals are associated with sulphide bearing epithermal deposits in Triassic-Jurassic volcanics (andesite) where they are intruded by monzosyenitic to dioritic dyke or stockworks.

RELATED A.R.: 08054, 12409

Dave A.R. 17610 REPORT YEAR: 1988, 32 Pages, 1 Map(s)

OPERATOR(S): Cedarmine Res.
AUTHOR(S): Gunn, R.C.M.
MINING DIV: Cariboo
LOCATION: NTS 093A12E LAT. 52 37 00 LONG. 121 35 00
CLAIM(S): Dave
EXPL. TARGET: Gold,Silver,Copper,Zinc
WORK DONE: DIAD 18.3 m 1 hole(s);EX ;AU,AG,AS,CU,ZN - 1 Map(s); 1:2500
PERD 141.1 m 1 hole(s);AU,AG,AS,CU,ZN

GEOLOGY: The area is mainly underlain by andesite which in places can be basaltic or agglomeratic. Andesite breccia also occurs locally. Epidote alteration of the volcanics is common in places. Dioites, monzonites and syenites have also been mapped. Pyrite and minor chalcopyrite are present in some of the altered andesite sections and locally form manssive blebs and lenses.

RELATED A.R.: 09582, 10507, 12515, 13757, 14399
MINFILE: 093A 010

Lloyd A.R. 17913 REPORT YEAR: 1988, 21 Pages, 1 Map(s)

OPERATOR(S): C.E.C. Eng.
AUTHOR(S): Cann, R.M.
MINING DIV: Cariboo
LOCATION: NTS 093A12E LAT. 52 35 00 LONG. 121 38 00
CLAIM(S): Lloyd 2
EXPL. TARGET: Copper,Gold
WORK DONE: GEOL 250.0 ha - 1 Map(s); 1:5000
ROCK 35 sample(s);AU,ME
SOIL 30 sample(s);AU,ME

GEOLOGY: Volcaniclastic rocks of the Triassic Nicola Group are intruded by coeval syenite dykes or stocks. Copper-gold mineralization is exposed in syenite near the sotheast corner of the Lloyd 2 claim.

Rox A.R. 17467 REPORT YEAR: 1988, 62 Pages, 10 Map(s)

OPERATOR(S): Cedarmine Res.
AUTHOR(S): Cook, R.A. Gunn, R.C.M.
MINING DIV: Cariboo
LOCATION: NTS 093A12E LAT. 52 34 50 LONG. 121 31 30
CLAIM(S): Cedar Creek,Ernest 1,Lilly 1,Lor,Ang,Rocky,Harriet,Nancy,Toucan,Climna
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: DIAD 21.4 m 2 hole(s);EX
IPOL 11.2 km - 10 Map(s);
LINE 11.2 km
PERD 432.0 m 8 hole(s);98mm
SAMP 432 sample(s);AU,AG,CU,PB,ZN

GEOLOGY: Gold and base metals are associated with sulphide bearing epithermal deposits in Triassic-Jurassic volcanics (andesite) where they are intruded by monzonsyenitic to dioritic dykes and stocks.

BC A.R. 16853 REPORT YEAR: 1988, 37 Pages, 3 Map(s)

OPERATOR(S): Circle Res.
AUTHOR(S): Fraser, B.
MINING DIV: Cariboo
LOCATION: NTS 093A12W LAT. 52 40 31 LONG. 121 58 08
CLAIM(S): BC 1,BC 3
EXPL. TARGET: Gold,Silver
WORK DONE: HMIN 1 sample(s);AG,AS,CU,PB,SB,ZN,AU
LINE 23.4 km
SILT 16 sample(s);AG,AS,CU,PB,SB,ZN,AU
SOIL 459 sample(s);AG,AS,CU,PB,SB,ZN,AU - 3 Map(s); 1:5000

GEOLOGY: Upper Triassic-Lower Jurassic Takla Group volcanics are intruded by a Lower Cretaceous (?) diorite plug. The lithology is obscured by glacial veneer. Anomalous gold and silver values occur in soils and stream sediments.

Jacob A.R. 17402 REPORT YEAR: 1988, 46 Pages, 2 Map(s)

OPERATOR(S): Circle Res.
AUTHOR(S): Kahlert, B.
MINING DIV: Cariboo
LOCATION: NTS 093A12W LAT. 52 37 00 LONG. 121 56 00
CLAIM(S): Jacob,Jacob 2
EXPL. TARGET: Gold
WORK DONE: LINE 17.0 km
[illegible]
[illegible]
[illegible]
SOIL 2[illegible] sample(s);[illegible] - 2 Map(s); 1:5000

GEOLOGY: The claims are underlain by volcanic-sedimentary rocks of the Quesnellia terrane, and Miocene Plateau basalts in the northwest corner of the Jacob claim.

Maud Lake A.R. 17598 REPORT YEAR: 1988, 100 Pages, 1 Map(s)

OPERATOR(S): QPX Min.
AUTHOR(S): Fox, P.E.
MINING DIV: Cariboo
LOCATION: NTS 093A12W LAT. 52 43 33 LONG. 121 54 53
CLAIM(S): Maud 1-4
EXPL. TARGET: Gold
WORK DONE: DIAD 2878.0 m 12 hole(s);BQ - 1 Map(s); 1:5000
ROAD 10.0 km
SAMP 440 sample(s);AU
GEOLOGY: The property covers intrusive rocks and enclosing pyritic volcanic rocks exposed on low ridges near the west side of Maud Lake. The intrusive bodies comprise two small alkalic intrusions, one of monzodiorite and monzonite and a second of gabbro and pyroxenite. Both intrude a thick succession of augite basalt, trachybasalt, felsic breccia and volcanic wackes and sediments. Gold is associated with weakly propylitized volcanic rocks and shear zones.
MINFILE: 093A 129

Hyland Lake A.R. 17197 REPORT YEAR: 1987, 80 Pages, 6 Map(s)

OPERATOR(S): Kin Res.
AUTHOR(S): Allen, D.G.
MINING DIV: Cariboo
LOCATION: NTS 093A12W, 093A13W, 093B09E, 093B16E LAT. 52 46 17 LONG. 121 57 56
CLAIM(S): Chain 1,JCB,JCB 2-4
WORK DONE: EMGR 8.5 km;VLF - 3 Map(s); 1:5000
LINE 47.8 km
MAGG 39.2 km - 3 Map(s); 1:5000
ROCK 3 sample(s);ME
SOIL 413 sample(s);ME
GEOLOGY: The property is underlain by Lower Mesozoic volcanic and volcanically derived sedimentary rocks transected by the QB fault along which a hornblende-bearing granite/granodiorite has been intruded.
MINFILE: 093A 042, 093A 123

Ques A.R. 17747 REPORT YEAR: 1988, 29 Pages

OPERATOR(S): **Brooks Res.**
AUTHOR(S): McDougall, J.J.
MINING DIV: Cariboo
LOCATION: NTS 093A12W LAT. 52 44 00 LONG. 121 51 00
CLAIM(S): Ques 1
EXPL. TARGET: Gold,Zinc
WORK DONE: SOIL 161 sample(s);AU,AG,CU,ZN,SB,AS,PB
GEOLOGY: Thhe claims are entirely covered by overburden. The bedrock is believed to be volcanic and shale and/or argillite.
RELATED A.R.: 15096

Kimo A.R. 16941 REPORT YEAR: 1987, 53 Pages

OPERATOR(S): **Trifaux, R.**
AUTHOR(S): Trifaux, R.
MINING DIV: Cariboo
LOCATION: NTS 093A13W LAT. 52 59 00 LONG. 121 51 48
CLAIM(S): Kimo
EXPL. TARGET: Magnesite
WORK DONE: ROCK 17 sample(s);ME
GEOLOGY: The claim area is underlain by Upper Triassic and Devonian volcanics, sediments and ultramafic rocks. Magnesite has been identified.
RELATED A.R.: 12266, 15566
MINFILE: 093A 088

Louise A.R. 17969 REPORT YEAR: 1988, 29 Pages

OPERATOR(S): **Trifco Min.**
AUTHOR(S): Trifaux, R.
MINING DIV: Cariboo
LOCATION: NTS 093A13W LAT. 52 59 30 LONG. 121 53 30
CLAIM(S): Louise 1

CONFIDENTIAL STATUS

Wim A.R. 18118 REPORT YEAR: 1988, 107 Pages

OPERATOR(S): **Trifco Min.**
AUTHOR(S): Trifaux, R.
MINING DIV: Cariboo
LOCATION: NTS 093A13W LAT. 52 59 20 LONG. 121 51 30
CLAIM(S): Wim 1-2,Wim-Ta 1-11,Arne 1-2,Tom

CONFIDENTIAL STATUS

Wim-Cal A.R. 16875 REPORT YEAR: 1987, 53 Pages

OPERATOR(S): **Trifaux, R.**
AUTHOR(S): Trifaux, R.
MINING DIV: Cariboo
LOCATION: NTS 093A13W LAT. 52 59 02 LONG. 121 50 12
CLAIM(S): Wim-Cal 1-4
EXPL. TARGET: Gold,Silver,Platinum,Palladium,Zinc,Copper,Molybdenum/Molybdenite,Lead,Kaolinite
WORK DONE: SAMP 11 sample(s);ME
GEOLOGY: The claim area is underlain by black schists, slates, argillite and sandstone of the Cambrian Cariboo Group. Two types of rock with kaolin occur.
RELATED A.R.: [illegible], [illegible], 07248, 08012, 09625, 10070, 11340, 12200, 15203

Wim-Ta A.R. 17246 REPORT YEAR: 1988, 108 Pages

OPERATOR(S): **Trifco Min. Trifaux, R.**
AUTHOR(S): Trifaux, R.
MINING DIV: Cariboo
LOCATION: NTS 093A13W LAT. 52 59 10 LONG. 121 53 02
CLAIM(S): Wim-Ta 1,Wim-Ta 6
EXPL. TARGET: Talc,Magnesite,Dolomite,Nickel,Copper,Cobalt,Gold,Platinum,Silver
WORK DONE: DIAD 64.0 m 4 hole(s);EX
PETR 34 sample(s)
TREN 560.0 m 3 trench(es)
GEOLOGY: The claims are underlain by Upper Triassic phyllite, argillite, quartzite, schist, serpentinite and peridotite. Greenschist facies metamorphism is evident. Extensive metamorphism south of the ultramafic rocks has resulted in talc occurrences.
MINFILE: 093A

Maybe A.R. 17357 REPORT YEAR: 1988, 147 Pages, 11 Map(s)

OPERATOR(S): **Gibraltar Mines**
AUTHOR(S): Bysouth, G.D.
MINING DIV: Cariboo
LOCATION: NTS 093A14E LAT. 52 58 49 LONG. 121 11 49
CLAIM(S): Maybe 5
EXPL. TARGET: Lead,Zinc
WORK DONE: DIAD 3044.0 m 20 hole(s);NQ - 11 Map(s); 1:2500,1:1000
SAMP 762 sample(s);PB,ZN,AG
GEOLOGY: Galena-sphalerite mineralization occurs in dark limestone and light grey phyllite of the Cambrian Cariboo Group. The mineralization is associated with quartz veining, ankerite replacements and a buff coloured massive alteration in zones one to ten metres wide and over 500 metres long in apparent strike length. These zones, which appear conformable with bedding structure, strike 300 degrees and dip 55 degrees northeast. Although the mineralization is continuous, grades are erratic but small high grade "ore shoots" have been identified.
MINFILE: 093A

Antler Creek A.R. 16990 REPORT YEAR: 1988, 176 Pages, 11 Map(s)

OPERATOR(S): **Rise Res. Akhurst, W.K.**
AUTHOR(S): De Carle, R.J. Gonzalez, R.A.
MINING DIV: Cariboo
LOCATION: NTS 093A14W, 093H03W LAT. 52 58 34 LONG. 121 24 27
CLAIM(S): Dan,C 12,Dowsett,Luke,Matt,Oro,AU 3,Gen. Frank,Hi Run,Independence,Silverdollar 1-2, Silverdawn 1-4,Silverlay 1-4,Sureshot
WORK DONE: DIAD 617.8 m 7 hole(s);NQ - 1 Map(s); 1:10 000
EMAB 419.0 km;HLEM,VLF - 5 Map(s); 1:10 000
LINE 15.0 km
MAGA 419.0 km - 2 Map(s); 1:10 000
RECL 0.3 ha
ROAD 4.5 km
SAMP 208 sample(s);ME
SOIL 221 sample(s);ME - 2 Map(s); 1:5000
TREN 71.5 m 7 trench(es) - 1 Map(s); 1:250
GEOLOGY: The Cambrian Cariboo Group, which underlies the property, is composed predominantly of clastic rocks with lesser amounts of carbonate rocks. While these rocks must have been subjected to low grade regional metamorphism and intense deformation, they still commonly show bedding and other sedimentary features. Deformation has impressed a marked secondary foliation on almost all clastic rocks and some carbonate rocks.
MINFILE: 093A 052, 093A 053, 093A 054, 093A 055, 093A 056, 093A 057

Aster A.R. 17220 REPORT YEAR: 1988, 73 Pages, 11 Map(s)

OPERATOR(S): **Suksma Ex.**
AUTHOR(S): Christopher, P.A.
MINING DIV: Cariboo
LOCATION: NTS 093A14W LAT. 52 53 53 LONG. 121 25 05
CLAIM(S): Aster 2-5
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: EMGR 20.0 km;VLF - 4 Map(s); 1:5000
GEOL 0.4 ha
LINE 34.0 km
ROCK 78 sample(s);ME - 1 Map(s); 1:5000
SOIL 1189 sample(s);ME - 6 Map(s); 1:5000
GEOLOGY: Situated near the boundary of the Omineca and Intermontane tectonic belts, the Aster property is underlain by the Cambrian Cariboo Group consisting of the Snowshoe and Midas Formations. The Midas Formation consists of black phyllite and the Snowshoe Formation consists of micaceous quartzite, phyllite and conglomerate with an upper limestone-mica schist member. Faults strike northeast and mineralization consists of pyrite, galena, sphalerite and chalcopyrite in quartz veins.
MINFILE: 093A 108, 093A 125

Bon A.R. 16876 REPORT YEAR: 1987, 8 Pages, 3 Map(s)

OPERATOR(S): **Durfeld, R.M.**
AUTHOR(S): Durfeld, R.M.
MINING DIV: Cariboo
LOCATION: NTS 093A14W LAT. 52 57 00 LONG. 121 22 00
CLAIM(S): Bon 1-2
EXPL. TARGET: Gold,Silver,Lead,Zinc,Tungsten
WORK DONE: LINE 0.5 km
SOIL 41 sample(s);ME - 3 Map(s); 1:1000
GEOLOGY: The property is underlain by the Mississippian age Downey Creek Succession consisting of a northwest trending section of brown siliceous phyllite with a limestone-marble core. Strong shearing is developed on this trend with parallel quartz-carbonate-sulphide veining. It is these vein structures that to date have developed the most significant gold and silver mineralization.

Cunningham Creek A.R. 17113 REPORT YEAR: 1988, 28 Pages, 23 Map(s)

OPERATOR(S): **Maloin, R.T.**
AUTHOR(S): Maloin, R.T.
MINING DIV: Cariboo
LOCATION: NTS 093A14W LAT. 52 54 00 LONG. 121 20 00
CLAIM(S): Roundtop,Park
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc,Tungsten,Molybdenum/Molybdenite
WORK DONE: EMGR 7.0 km;VLF - 13 Map(s); 1:1000,1:500
GEOL 75.0 ha - 5 Map(s); 1:1000,1:500,1:200
LINE 11.3 km
MAGG 7.0 km - 5 Map(s); 1:1000,1:500

QUESNEL LAKE 093A

GEOLOGY: Proterozoic to Permian sedimentary rocks, consisting mainly of undeformed quartz sericite schists, are cut by linear mineralizing structures with extensive alteration halos.
MINFILE: 093A 090, 093A 091, 093A 092, 093A 094, 093A 05, 093A 060, 093A 106

Cunningham Creek A.R. 16743 REPORT YEAR: 1987

OPERATOR(S): Cathedral Gold
AUTHOR(S): Delancey, P.R.
MINING DIV: Cariboo
LOCATION: NTS 093A14W LAT. 52 53 18 LONG. 121 19 36
CLAIM(S): M 32
WORK DONE: DIAD 1098.4 m 12 hole(s);NQ
GEOL 20.0 ha
LINE 28.0 km
MAGG 9.1 km
ROCK 386 sample(s);ME
SAMP 128 sample(s);ME
SOIL 940 sample(s);ME
GEOLOGY: Interbedded quartzites, sericite schists, limestones and chlorite schists strike northwest and dip 70-80 degrees northeast. Several systems of quartz veins cut these rocks. Gold mineralization is associated with sulphides, mostly pyrite, and is concentrated along steeply plunging ore shoots.
RELATED A.R.: 08282, 11916, 15443, 16262

Cunningham Creek A.R. 17124 REPORT YEAR: 1988, 141 Pages, 24 Map(s)

OPERATOR(S): Cathedral Gold
AUTHOR(S): Delancey, P.R.
MINING DIV: Cariboo
LOCATION: NTS 093A14W LAT. 52 53 00 LONG. 121 20 00
CLAIM(S): Mineral Lease M32
EXPL. TARGET: Gold
WORK DONE: DIAD 1098.4 m 12 hole(s); NQ - 7 Map(s); 1:250
GEOL 150.0 ha - 5 Map(s); 1:5000,1:1000
LINE 28.0 km
MAGG 9.1 km - 7 Map(s); 1:1000
ROCK 484 sample(s);ME
SOIL 940 sample(s);ME - 5 Map(s); 1:1000
GEOLOGY: Interbedded quartzites, sericite schists, limestones and chlorite schists striking northwest and dipping 70-80 degrees northeast are cut by several systems of auriferous quartz veins. The roughly parallel trending Shasta, Hudson and 605 veins occupy steeply dipping faults. Gold mineralization is associated with sulphides, mostly pyrite, and is concentrated along steeply plunging ore shoots. Preliminary results indicate that massive pyritic "replacement" deposits, similar to those at Wells, may occur along a limestone horizon.
MINFILE: 093A 071, 093A 093

D.D. A.R. 17248 REPORT YEAR: 1988, 67 Pages

OPERATOR(S): Cascadia Mines & Res.
AUTHOR(S): Davenport, T.G.
MINING DIV: Cariboo
LOCATION: NTS 093A14W LAT. 52 47 43 LONG. 121 26 24
CLAIM(S): Stu 1,D.D. 2
EXPL. TARGET: Gold,Silver,Platinum,Palladium
WORK DONE: SAMP 126 sample(s);AU,AG
GEOLOGY: The property is underlain by metasedimentary rocks of the Cambrian Cariboo Group, principally the Snowshoe Formation. Micaceous quartzites are the commonest type of arenaceous rock, while the argillaceous rocks are phyllites with fine siltstones.
RELATED A.R.: 16399

Mass A.R. 17696 REPORT YEAR: 1988, 13 Pages, 1 Map(s)

OPERATOR(S): Guinet, V.
AUTHOR(S): Guinet, V.
MINING DIV: Cariboo
LOCATION: NTS 093A14W LAT. 52 45 14 LONG. 121 21 45
CLAIM(S): Mass
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: PROS 125.0 ha - 1 Map(s); 1:5000
SILT 22 sample(s);ME
GEOLOGY: Massive sulphide boulders occur in overburden on the claim. The Paleozoic Snowshoe Group appears to underlie the property.

Maybe A.R. 17642 REPORT YEAR: 1988, 16 Pages, 5 Map(s)

OPERATOR(S): Gibraltar Mines
AUTHOR(S): Bysouth, G.D.
MINING DIV: Cariboo
LOCATION: NTS 093A14W LAT. 52 52 00 LONG. 121 16 00
CLAIM(S): Grizzly 2
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE: SOIL 143 sample(s);CU,PB,ZN,AG - 5 Map(s); 1:5000
GEOLOGY: This survey was undertaken to test the northwest extention of a sphalerite and galena occurrence of massive segregations associated with quartz and iron carbonate in a sequence of dark limestone, light grey phyllite and black phyllite of the Hadrynian to Cambrian Cariboo Group. The mineralization occurs within or at the contacts of the black limestone units and appears stratabound. In general, the sedimentary assemblage strikes northwesterly and dips to the northeast.

QUESNEL 093B

Redstone A.R. 16937 REPORT YEAR: 1988, 53 Pages, 6 Map(s)

OPERATOR(S): Newmont Ex.
AUTHOR(S): Hebocat, J.
MINING DIV: Cariboo
LOCATION: NTS 093B05W LAT. 52 27 43 LONG. 123 58 05
CLAIM(S): Redstone 1-6
WORK DONE: GEOL - 1 Map(s); 1:5000
LINE
ROCK 78 sample(s);ME
SOIL 631 sample(s);ME - 5 Map(s); 1:5000
TREN 4 trench(es)
GEOLOGY: Lower Jurassic Hazelton Group tuffs have been intensely bleached, kaolinized and veined with limonite and/or hematite over a 2000 metre by 500 metre area. Alteration is believed to be caused by an early Tertiary, felsic, high-level intrusion. A jasperoid, a limonitic and and locally kaolinized chert pebble conglomerate and granulestone

occur three kilometres east of the tuffs. The sediments are mapped as part of the Lower Cretaceous Skeena Group. Post-alteration northwest trending transverse and northeast trending block faulting was observed. No precious metal values were obtained, however, slightly elevated mercury, arsenic, zinc and barium values exist in soil and rock samples.

Narc A.R. 17425 REPORT YEAR: 1988, 11 Pages, 1 Map(s)

OPERATOR(S): **Poole, W.E.**
AUTHOR(S): Poole, W.E.
MINING DIV: Cariboo
LOCATION: NTS 093B07W LAT. 52 25 39 LONG. 122 46 13
CLAIM(S): Narc 1-2
WORK DONE: PROS 1000.0 ha - 1 Map(s); 1:10 000
GEOLOGY: The property is underlain by the Permo-Pennsylvanian Cache Creek Group with possible Jurassic intrusive stocks. Tertiary volcanic flows cover many of these older rocks. Outcrops are scarce. No mineralization or significant alteration was noted.

Ben A.R. 17481 REPORT YEAR: 1988, 77 Pages, 2 Map(s)

OPERATOR(S): **Circle Res.**
AUTHOR(S): Kahlert, B.
MINING DIV: Cariboo
LOCATION: NTS 093B09E LAT. 52 35 00 LONG. 122 05 00
CLAIM(S): Ben 1-5
EXPL. TARGET: Gold
WORK DONE: LINE 36.0 km
ROCK 69 sample(s)
SILT 116 sample(s);AU,AG,AS,SB,CU,PB,ZN
SOIL 392 sample(s);AU,AG,AS,SB,CU,PB,ZN - 2 Map(s); 1:5000
GEOLOGY: The claims are underlain by volcanic-sedimentary rocks of the Quesnellia terrane and Cache Creek sedimentary rocks. These rocks are cut by high and low angle faults. Heavy mineral samples contain up to 1575 ppb gold.

Gibraltar A.R. 17050 REPORT YEAR: 1988, 173 Pages, 1 Map(s)

OPERATOR(S): **Gibraltar Mines**
AUTHOR(S): Thon, M.R.
MINING DIV: Cariboo
LOCATION: NTS 093B09E, 093B09W LAT. 52 30 30 LONG. 122 15 30
CLAIM(S): HD 18 Fr.,Linda 1
EXPL. TARGET: Copper,Molybdenum/Molybdenite
WORK DONE: DIAD 1479.0 m 11 hole(s);NQ - 1 Map(s); 1:945
SAMP 452 sample(s);CU,MO
GEOLOGY: Chalcopyrite, pyrite and sparse molybdenite occur in quartz veins accompanied by various combinations of chlorite, sericite, epidote and carbonate. The host rock is an inner border phase of the Triassic Granite Mountain pluton which has undergone pervasive saussurite-chlorite alteration. Four economic zones have been recognized and are in various stages of development and production; these are the Pollyanna, Granite Lake, Gibraltar East and Gibraltar West zones. The general trend of deformation, alteration and mineralization is westerly and northwesterly.
RELATED A.R.: 01641, 01680, 02425, 07438, 10548, 13117
MINFILE: 093B 013

Esker A.R. 17145 REPORT YEAR: 1988, 39 Pages, 7 Map(s)

OPERATOR(S): **Lac Min.**
AUTHOR(S): Brown, R.F.
MINING DIV: Cariboo
LOCATION: NTS 093B13E LAT. 52 54 00 LONG. 123 42 00
CLAIM(S): Esker 1-4
EXPL. TARGET: Gold
WORK DONE: IPOL 5.3 km - 3 Map(s); 1:5000,1:10 000
LINE 5.3 km
ROAD 1.6 km
ROCK 159 sample(s);ME
ROTD 228.6 m 3 hole(s)
SOIL 92 sample(s);ME - 4 Map(s); 1:10 000
GEOLOGY: Lower Cretaceous Skeena Group? siltstones, sandstones and argillites with minor chert pebble conglomerate are cut by pale green felsite dykes and white quartz-feldspar felsic porphyry dykes. The survey results show clay alteration, rusty cubic voids, anomalous values of arsenic, mercury, silver, gold, and copper in soil, and an induced polarization chargeability anomaly.

Gravelle A.R. 17484 REPORT YEAR: 1988, 45 Pages, 1 Map(s)

OPERATOR(S): **Circle Res.**
AUTHOR(S): Kahlert, B.
MINING DIV: Cariboo
LOCATION: NTS 093B16E LAT. 52 49 00 LONG. 122 09 00
CLAIM(S): Gravelle
EXPL. TARGET: Gold
WORK DONE: HMIN 3 sample(s);AU,AG,AS,SB,CU,PB,ZN
LINE 18.5 km
SOIL 340 sample(s);AU,AG,AS,SB,CU,PB,ZN - 1 Map(s); 1:5000
GEOLOGY: The claims are underlain by Quesnellia volcanic-sedimentary sequences, which are intruded by alkalic plutons. Heavy mineral samples contain up to 2150 ppb gold.

North Circle A.R. 17483 REPORT YEAR: 1988, 54 Pages, 2 Map(s)

OPERATOR(S): **Circle Res.**
AUTHOR(S): Kahlert, B.
MINING DIV: Cariboo
LOCATION: NTS 093B16E LAT. 52 47 00 LONG. 122 12 00
CLAIM(S): Circle,Circle 2-3
EXPL. TARGET: Gold
WORK DONE: LINE 26.8 km
ROCK 15 sample(s);ME
SILT 40 sample(s);AU,AG,AS,SB,CU,PB,ZN
SOIL 532 sample(s);AU,AG,AS,SB,CU,PB,ZN - 2 Map(s); 1:5000
GEOLOGY: The claims are underlain by Quesnellia terrane volcanic-sedimentary units immediately adjacent to the Pinchi Fault. Single spot soil anomalies contain up to 2250 ppb gold.

Dragon A.R. 16810 REPORT YEAR: 1987, 34 Pages, 1 Map(s)

OPERATOR(S): **Circle Res.**
AUTHOR(S): Fraser, B.
MINING DIV: Cariboo
LOCATION: NTS 093B16W LAT. 52 57 21 LONG. 122 20 29

QUESNEL 093B

CLAIM(S): Dragon,Dragon 2,Rich 1-2
EXPL. TARGET: Gold
WORK DONE: LINE 18.1 km - 1 Map(s); 1:5000
SOIL 599 sample(s);AG,AS,CU,PB,SB,ZN,AU
GEOLOGY: The claims are underlain by northwest trending Upper Triassic Takla Group augite porphyry, mafic volcaniclastics, minor greywacke, argillite and limestone. Weak chlorite-epidote alteration is developed. Anomalous gold values occur in soils.

Quesnel Canyon Placer A.R. 16736 REPORT YEAR: 1987

OPERATOR(S): **Freegold Recovery Inc.**
AUTHOR(S): Dolphin,K
MINING DIV: Cariboo
LOCATION: NTS 093B16W LAT. 52 59 23 LONG. 122 20 35
CLAIM(S): Placer Lease 15099,Placer Lease 15320
WORK DONE: META 6 sample(s)
PITS 60 pit(s)
SAMP 112 sample(s);AU
GEOLOGY: Within Placer Lease 15320 on the lower bench, which is elevated 10 metres above the Quesnel River, coarse cobble gravels commonly overlie an undulating volcanic bedrock. The first tier bench, elevated 8-15 metres above the lower bench, is typically comprised of silt overlying interbedded pebble to cobble size gravels.

ANAHIM LAKE 093C

Tamp A.R. 16344 REPORT YEAR: 1988, 66 Pages, 2 Map(s)

OPERATOR(S): **Lac Min.**
AUTHOR(S): Sketchley, D.A. Rebic, Z.
MINING DIV: Cariboo
LOCATION: NTS 093C11E, 093C11W LAT. 52 42 38 LONG. 125 14 44
CLAIM(S): Tamp 1-8,Tamp 10,Tamp 12
EXPL. TARGET: Beryllium,Niobium/Columbium
WORK DONE: GEOL 3050.0 ha - 1 Map(s); 1:10 000
PETR 15 sample(s)
ROCK 295 sample(s);LI,NB,MN,BE,BA,MG - 1 Map(s); 1:10 000
GEOLOGY: The claims are underlain by trachyte, pantellerite, comendite and hawaiite of the Ilgachuz Range peralkaline shield volcano. Clay altered zones are locally common between cooling units where breccias occur.

Cathy J A.R. 17828 REPORT YEAR: 1988, 22 Pages

OPERATOR(S): **Rozek, D.H.**
AUTHOR(S): Rozek, D.H.
MINING DIV: Cariboo
LOCATION: NTS 093C14W LAT. 52 50 04 LONG. 125 26 57
CLAIM(S): Cathy J 1-2
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold
WORK DONE: ROCK 25 sample(s);CU,ZN,PB,AG,AU
SOIL 113 sample(s);CU,ZN,PB,AG,AU
GEOLOGY: The claims lie on the northwest flank of Far Mountain at the northern extremity of the Ilgatchoo Mountain Range, a Tertiary shield volcano of the east trending Anahim Lake belt, and are underlain by Jurassic diorite, chlorite schist, quartz and quartz monzonite partially covered by the Tertiary volcanics (rhyolite, basalt, obsidian). Bedrock is extremely altered by hydrothermal activity. Copper, gold, silver, lead and zinc mineralization is present.
RELATED A.R.: 16268

Oboy A.R. 16962 REPORT YEAR: 1987, 50 Pages, 2 Map(s)

OPERATOR(S): **Lornex Min. Can. Nickel**
AUTHOR(S): Cann, R.M.
MINING DIV: Cariboo
LOCATION: NTS 093C16E LAT. 52 45 00 LONG. 124 14 00
CLAIM(S): OBoy 4
EXPL. TARGET: Silver,Gold
WORK DONE: DIAD 892.1 m 6 hole(s);NQ - 2 Map(s); 1:5000,1:500
SAMP 188 sample(s);ME
GEOLOGY: Flat-lying Tertiary andesite has been widely bleached and altered to potassium feldspar and sericite. Anomalous silver, gold and arsenic values are associated with a north trending silicified zone within the bleached area.
RELATED A.R.: 15298

WHITESAIL LAKE 093E

Kemano A.R. 17036 REPORT YEAR: 1987, 51 Pages, 4 Map(s)

OPERATOR(S): **Whitesail Min.**
AUTHOR(S): Meyers, E.
MINING DIV: Skeena
LOCATION: NTS 093E05E, 093E05W, 093E12E LAT. 53 29 45 LONG. 127 44 12
CLAIM(S): Smith 1,Beaver 2,Beaver 5-8,Slide 1,Saile 5
EXPL. TARGET: Gold
WORK DONE: DIAD 65.2 m 2 hole(s);BQ
GEOL 125.0 ha - 3 Map(s); 1:10 000,1:2000,1:400
LINE 15.0 km
MAGG 18.0 km - 1 Map(s); 1:2000
ROCK 141 sample(s);AU
SAMP 14 sample(s);AU
GEOLOGY: Mesozoic or Paleozoic metavolcanic greenstone, felsic bands, metasedimentary schists and amphibolitic gneiss are intruded by Upper Cretaceous Coast Plutonic Complex granitic rocks. Auriferous pyritic quartz veins occur.
RELATED A.R.: 14752, 16175
MINFILE: 093E 014

Core A.R. 17991 REPORT YEAR: 1988, 23 Pages

OPERATOR(S): **Atna Res.**
AUTHOR(S): Richards, T.A.
MINING DIV: Omineca
LOCATION: NTS 093E06E LAT. 53 27 00 LONG. 127 11 00
CLAIM(S): Gary
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 500.0 ha
ROCK 24 sample(s);ME
SILT 16 sample(s);ME
GEOLOGY: Anomalous values of gold to 3100 ppb and silver to 26 ppm were located in float boulders of quartz vein, silicified lapilli tuff and quartz-carbonate shear zones in Lower Jurassic volcanics of the

Hazelton Group. The mineralization appears to be related to north-trending shear zones that cut Upper Cretaceous Intrusions and Jurassic volcanics.

RELATED A.R.: 09066, 11530

Cole A.R. 17962 REPORT YEAR: 1988, 37 Pages, 2 Map(s)

OPERATOR(S): **QFX Min.**
AUTHOR(S): Gourlay, A.W.
MINING DIV: Omineca
LOCATION: NTS 093E06W LAT. 53 27 00 LONG. 127 17 00
CLAIM(S): Cole I-II
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 1000.0 ha - 1 Map(s); 1:10 000
ROCK 110 sample(s);ME - 1 Map(s); 1:10 000

GEOLOGY: Mineralization on the property consists of numerous quartz veins, stringers and stockworks, varying from a few centimetres to 4 metres wide, with low sulphide content. Extensive propylite is associated with the veins and argillic alteration is common as selvages. The country rocks are lapilli tuffs of Lower Jurassic Hazelton Group.

RELATED A.R.: 12666, 14531, 16677
MINFILE: 093E 110

Uduk A.R. 17520 REPORT YEAR: 1988, 35 Pages, 1 Map(s)

OPERATOR(S): **Comox Res.**
AUTHOR(S): MacQuarrie, D.R.
MINING DIV: Omineca
LOCATION: NTS 093E09E, 093F12W LAT. 53 36 44 LONG. 125 59 09
CLAIM(S): Duk 1-2
EXPL. TARGET: Gold,Silver
WORK DONE: IPOL 18.0 km - 1 Map(s); 1:10 000
LINE 30.0 km

GEOLOGY: The claims cover an area of Tertiary rhyolite flows and tuffs of the Ootsa Lake Group. A broad zone of argillization and quartz veining about 2 kilometres in diameter locally contains anomalous gold, silver and arsenic values.

RELATED A.R.: 14557, 14637

Tahtsa Reach A.R. 17443 REPORT YEAR: 1988, 29 Pages, 2 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): MacArthur, R. Maxwell, G.
MINING DIV: Omineca
LOCATION: NTS 093E10W LAT. 53 44 00 LONG. 126 52 00
CLAIM(S): TR 3,GR 1
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 150.0 ha
ROCK 39 sample(s)
SOIL 192 sample(s);ME - 2 Map(s); 1:5000

GEOLOGY: The area is underlain by Hazelton Group, Smithers Formation volcanic and sedimentary rocks which are cut by stocks and plugs of Cretaceous diorite and monzonite. Hydrothermal and carbonate-clay alteration has developed locally. No significant mineralization was observed or detected by geochemical analysis.

Berr A.R. 17312 REPORT YEAR: 1988, 29 Pages, 4 Map(s)

OPERATOR(S): **Equity Silver Mines**
AUTHOR(S): Hanson, D.
MINING DIV: Omineca
LOCATION: NTS 093E11E LAT. 53 41 00 LONG. 127 07 00
CLAIM(S): Berr 1
EXPL. TARGET: Gold,Silver,Copper,Zinc
WORK DONE: GEOL 500.0 ha - 1 Map(s); 1:5000
ROCK 6 sample(s);AU,AG,CU,PB,ZN,AS,SB,FL
SOIL 433 sample(s);AU,AG,CU,PB,ZN,AS,SB - 3 Map(s); 1:5000

GEOLOGY: The claims are underlain by a conformable sequence of argillites, felsic volcanics, and andesitic ash lapilli tuffs that have been correlated with the Smithers, Whitesail and Telkwa Formations respectively, Hazelton Group. The old Riverside showing was not observed and is assumed to be under water.

MINFILE: 093E 036

Coles Creek A.R. 17228 REPORT YEAR: 1988, 129 Pages, 19 Map(s)

OPERATOR(S): **Westbank Res.**
AUTHOR(S): Lambert, E.
MINING DIV: Omineca
LOCATION: NTS 093E11E, 093E11W LAT. 53 31 53 LONG. 127 13 40
CLAIM(S): Ryan,Mark-K
EXPL. TARGET: Silver,Gold,Zinc,Lead,Copper
WORK DONE: DIAD 886.0 m 7 hole(s);BDGM
EMGR 37.6 km;VLF - 2 Map(s); 1:5000
GEOL 1000.0 ha - 1 Map(s); 1:5000
IPOL 25.2 km - 13 Map(s); 1:5000,1:1250
MAGG 31.5 km - 1 Map(s); 1:5000
ROCK 276 sample(s);ME
SAMP 175 sample(s);ME
SILT 6 sample(s);ME
SOIL 1182 sample(s);ME - 2 Map(s); 1:5000
TREN 60.0 m 8 trench(es)

GEOLOGY: Lower Jurassic Hazelton Group volcanic and sedimentary rocks are overlain by Cretaceous Kasalko Group volcanic and sedimentary rocks. This sequence is intruded by Late Cretaceous stocks and dykes. Northwest to northeast trending faults and shears cut the rock groups. Epithermal alteration (clay and silica) occurs around the stocks. Pyrite, sphalerite, galena and chalcopyrite mineralization occurs as veins and disseminations in altered rocks.

RELATED A.R.: 01679, 02003, 02664, 03309
MINFILE: 093E 042, 093E 044

Troitsa Peak A.R. 17654 REPORT YEAR: 1988, 32 Pages, 1 Map(s)

OPERATOR(S): **Alpine Ex.**
AUTHOR(S): Harivel, C.
MINING DIV: Omineca
LOCATION: NTS 093E11E LAT. 53 34 00 LONG. 127 03 00
CLAIM(S): Jessie
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 150.0 ha - 1 Map(s); 1:2500
ROCK 36 sample(s);ME
SILT 5 sample(s);ME

GEOLOGY: The area is underlain by marine and continental volcanics of the Jurassic Hazelton Group and a hypabyssal intrusive complex of dacitic composition and probable Early Tertiary age. The property is transected by a major set of faults trending north and east-northeast.

The Cummins Creek vein system consists of numerous quartz veins up to 1 metre wide, striking north. Samples contain up to 41.4 grams of gold per tonne and 9267.8 grams of silver per tonne.
RELATED A.R.: 10875, 11512, 11709, 17792
MINFILE: 093E 100

Troitsa Peak A.R. 17792 REPORT YEAR: 1987, 43 Pages

OPERATOR(S): **Alpine Ex.**
AUTHOR(S): Lambert, E.
MINING DIV: Omineca
LOCATION: NTS 093E11E LAT. 53 35 00 LONG. 127 02 15
CLAIM(S): Troitsa 1,Wind Tunnel,P.S.,Whitesail,Cummins North
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 921.0 m 12 hole(s);BDX
EMGR 1.9 km;VLF
GEOLOGY: Quartz veins, stockworks and silicification occur in host rock of Jurassic and Eocene felsic volcanic, volcaniclastic sediments and monzonite intrusives. Mapping of boulder trains in quartz overburden covered areas indicated northeast trends in the Morraine area. Assay values from one quartz vein gave 3.9 grams per tonne gold over 1 metre, while selected grab samples returned 36.5 grams per tonne gold and 822.7 grams per tonne silver.
MINFILE: 093E 109

Troy A.R. 17313 REPORT YEAR: 1988, 30 Pages, 4 Map(s)

OPERATOR(S): **Equity Silver Mines**
AUTHOR(S): Hanson, D.
MINING DIV: Omineca
LOCATION: NTS 093E11E, 093E11W LAT. 53 35 00 LONG. 127 15 00
CLAIM(S): Troy 1-2
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 600.0 ha - 1 Map(s); 1:5000
ROCK 8 sample(s);AU,AG,CU,PB,ZN,AS,SB,FL
SOIL 116 sample(s);AU,AG,CU,PB,ZN,AS,SB - 3 Map(s); 1:5000
GEOLOGY: Sparse pyrite fracture filling mineralization with associated weak sericite alteration occurs at two locations in argillites and felsic ash tuffs belonging to the Middle Jurassic Hazelton Group.

Kate A.R. 17311 REPORT YEAR: 1988, 30 Pages, 4 Map(s)

OPERATOR(S): **Equity Silver Mines**
AUTHOR(S): Hanson, D.
MINING DIV: Omineca
LOCATION: NTS 093E11W LAT. 53 37 00 LONG. 127 22 00
CLAIM(S): Kate 1-2
EXPL. TARGET: Silver,Gold,Lead,Zinc
WORK DONE: GEOL 90.0 ha - 1 Map(s); 1:5000
ROCK 13 sample(s);AU,AG,CU,PB,ZN,AS,SB,FL
SOIL 147 sample(s);AU,AG,CU,PB,ZN,AS,SB - 3 Map(s); 1:5000
GEOLOGY: Andesitic volcanics of the Cretaceous Kasalka Group are variably silicified and sericitized within a north-south trending 130 metre wide zone of pyrite and pyrrhotite mineralization occurring as fracture fillings and blebs. One massive sulphide lense in this zone contains pyrite, sphalerite, arsenopyrite, chalcopyrite and galena.
MINFILE: 093E 099

Sky A.R. 17993 REPORT YEAR: 1988, 24 Pages, 7 Map(s)

OPERATOR(S): **Geostar Min.**
AUTHOR(S): Pardoe, A.J.
MINING DIV: Omineca
LOCATION: NTS 093E11W LAT. 53 44 00 LONG. 127 20 00
CLAIM(S): Sky 1-2
EXPL. TARGET: Copper,Lead,Zinc,Silver,Arsenic
WORK DONE: GEOL 500.0 ha - 1 Map(s); 1:10 000
ROCK 4 sample(s);ME
SILT 8 sample(s);ME
SOIL 247 sample(s);ME - 6 Map(s); 1:10 000
GEOLOGY: The Sky claims are underlain by Cretaceous Skeena Group volcanics and volcanic sediments. Crosscutting and intruding these rocks are subvolcanic plugs and stocks of the Kasalka intrusions. Mineralization is restricted to several gossanous pyritic zones.

Wing A.R. 17314 REPORT YEAR: 1988, 29 Pages, 8 Map(s)

OPERATOR(S): **Equity Silver Mines**
AUTHOR(S): Hanson, D.
MINING DIV: Omineca
LOCATION: NTS 093E11W LAT. 53 40 00 LONG. 127 22 00
CLAIM(S): Wing 1-3
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc,Antimony,Arsenic
WORK DONE: GEOL 82.0 ha - 2 Map(s); 1:5000
ROCK 10 sample(s);AU,AG,CU,PB,ZN,AS,SB,FL
SOIL 155 sample(s);AU,AG,CU,PB,ZN,AS,SB - 6 Map(s); 1:5000
GEOLOGY: The claims are underlain by interbedded felsic volcanics and coarse to intermediate epiclastic sediments of the Upper Cretaceous Kasalka Group. The rocks include structurally controlled zones of weak to strong pyrite-sericite alteration.

New Moon A.R. 16757 REPORT YEAR: 1987

OPERATOR(S): **Newmont Ex. of Can.**
AUTHOR(S): Visagie, D.
MINING DIV: Omineca
LOCATION: NTS 093E13W LAT. 53 56 48 LONG. 127 46 38
CLAIM(S): Misty Day,Lunar 1-2,Lunar 5,Lunar 12,Computor,Landsat
WORK DONE: DIAD 1266.0 m 19 hole(s);BQ ,NQ
GEOL 200.0 ha
ROCK 118 sample(s);CU,PB,ZN,AG,AU
SAMP 1018 sample(s);CU,PB,ZN,AG,AU
TREN 1078.3 m 122 trench(es)
GEOLOGY: The property is underlain by Lower Jurassic intermediate-felsic volcanics and volcaniclastics of the Hazelton Group of which locally the Telkwa Formation is prominent. The volcanics in turn have been cut by various dykes and intrusive bodies. Three types of mineralization have been identified: a) epithermal base and precious metal b) massive banded sulphide and c) magnetite skarn.
RELATED A.R.: 03251, 03252, 07022, 09709, 11153, 11764, 15640, 15741

New Moon A.R. 16870 REPORT YEAR: 1987, 255 Pages, 26 Map(s)

OPERATOR(S): **Newmont Ex. of Can.**
AUTHOR(S): Visagie, D.
MINING DIV: Omineca
LOCATION: NTS 093E13W, 093E13E LAT. 53 56 36 LONG. 127 46 12

WHITESAIL LAKE 093E

CLAIM(S): Lunar 1-2,Lunar 12,Lunar 14,Misty Day,Computer,Landsat
EXPL. TARGET: Lead,Zinc,Silver,Gold
WORK DONE: DIAD 1263.0 m 19 hole(s);BQ ,NQ - 16 Map(s); 1:250
GEOL 200.0 ha - 7 Map(s); 1:10 000,1:2500,1:1000,1:500
ROCK 110 sample(s);PB,ZN,AG,AU
SAMP 966 sample(s);PB,ZN,AG,AU
TREN 1078.3 m 122 trench(es) - 3 Map(s); 1:1000,1:500
GEOLOGY: Twenty mineralized occurrences have been located within Lower Jurassic Hazelton Group volcanics, seven of which have had limited drilling completed on them. The zones consist of fault controlled, steeply dipping, northeasterly striking quartz-carbonate veins and breccias in which variable amounts of galena, sphalerite, chalcopyrite, gold and silver occur.
RELATED A.R.: 15640, 16757
MINFILE: 093E 011

Tab A.R. 17315 REPORT YEAR: 1988, 30 Pages, 4 Map(s)

OPERATOR(S): **Equity Silver Mines**
AUTHOR(S): Hanson, D.
MINING DIV: Omineca
LOCATION: NTS 093E14W, 093L03W LAT. 54 00 00 LONG. 127 23 00
CLAIM(S): Tab 1
EXPL. TARGET: Zinc,Gold,Arsenic,Antimony
WORK DONE: GEOL 150.0 ha - 1 Map(s); 1:5000
ROCK 18 sample(s);AU,AG,CU,PB,ZN,AS,SB,FL
SOIL 214 sample(s);AU,AG,CU,PB,ZN,AS,SB - 3 Map(s); 1:5000
GEOLOGY: Pyrite-quartz mineralization occurs as stringers and fracture fillings at three locations within a unit of felsic ash tuff of the Upper Cretaceous Kasalka Group.

Dambo A.R. 18137 REPORT YEAR: 1988, 47 Pages, 9 Map(s)

OPERATOR(S): **Exeter Min.**
AUTHOR(S): Goldsmith, L.B. Kallock, P.
MINING DIV: Omineca
LOCATION: NTS 093E15E LAT. 53 51 00 LONG. 126 33 00
CLAIM(S): Dambo 1-4
EXPL. TARGET: Copper,Lead,Zinc,Silver
WORK DONE: MAGG 16.8 km - 2 Map(s); 1:5000
PETR 1 sample(s)
SOIL 341 sample(s);CU,PB,ZN,AG,AS - 6 Map(s); 1:5000
TREN 323.0 m 14 trench(es) - 1 Map(s); 1:5000
GEOLOGY: The property is underlain by Cretaceous or Tertiary Ootsa Lake Group volcanics and lesser feldspar porphyry dykes and basalt flows. Rhyolite flows and breccias with local silicification and clay alteration are exposed in the central portion of the claims.
RELATED A.R.: 09788

Shelford Hills A.R. 17804 REPORT YEAR: 1988, 194 Pages, 12 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Myers, D.E.
MINING DIV: Omineca
LOCATION: NTS 093E15E LAT. 53 53 23 LONG. 126 38 17
CLAIM(S): Hills 1-2,Shel 1,Shel 3-7,Shel 9-10,Stan 1-4
WORK DONE: GEOL 6000.0 ha - 4 Map(s); 1:10 000
HMIN 6 sample(s);ME
ROCK 154 sample(s);ME
SILT 149 sample(s);ME - 4 Map(s); 1:10 000
SOIL 386 sample(s);ME - 4 Map(s); 1:10 000
GEOLOGY: Large areas of alteration (sericite +/- clay +/- chlorite +/- quartz +/- pyrite) of Kasalka and/or Ootsa Lake Group felsic volcanics occur, especially on the Shel 5, 9 and 10 claims. Anomalous rock, soil and silt values range up to 4300 ppm zinc and 310 ppb gold. No economic mineralization has been located to date.

Tets A.R. 17343 REPORT YEAR: 1988, 30 Pages

OPERATOR(S): **Shelford, J.**
AUTHOR(S): Shelford, J.
MINING DIV: Omineca
LOCATION: NTS 093E15W LAT. 53 50 34 LONG. 126 56 53
CLAIM(S): Tets
EXPL. TARGET: Copper,Zinc,Cadmium,Silver
WORK DONE: DIAD 28.7 m 1 hole(s);EX
PITS 1 pit(s)
TREN 32.0 m 1 trench(es)
GEOLOGY: The claims appear to be underlain by sediments and volcanic rocks.
RELATED A.R.: 16003
MINFILE: 093E 084

NECHAKO RIVER 093F

Becky Jo A.R. 16837 REPORT YEAR: 1987, 14 Pages

OPERATOR(S): **Rozek, D.H.**
AUTHOR(S): Rozek, D.H.
MINING DIV: Omineca
LOCATION: NTS 093F02W LAT. 53 11 03 LONG. 124 53 32
CLAIM(S): Becky Jo
EXPL. TARGET: Silver,Zinc
WORK DONE: SOIL 100 sample(s);AG,ZN,PB,CU,AS
GEOLOGY: The claim area is underlain by Lower Jurassic Hazelton Group rocks or possibly Tertiary Ootsa Lake Group rocks.

Blackwater-Davidson A.R. 17032 REPORT YEAR: 1988, 156 Pages, 1 Map(s)

OPERATOR(S): **Granges Ex.**
AUTHOR(S): Zbitnoff, G.W.
MINING DIV: Omineca
LOCATION: NTS 093F02W LAT. 53 10 45 LONG. 124 51 50
CLAIM(S): Pem
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: DIAD 2724.6 m 22 hole(s);BQ - 1 Map(s); 1:2500
GEOLOGY: Property is underlain by Cretaceous and/or Tertiary volcanics of the Ootsa Lake Group. Drilling reveals a suite of felsic volcanic rocks representing more or less altered, glassy, typically non-porphyritic rhyolites and latites. Mineralogy consists of varying proportions of quartz, sericite and potassic glass. The majority are fragmental rocks, either coarse tuffs or brecciated flows.
RELATED A.R.: 06384, 07803, 11051, 14242
MINFILE: 093F

Dave A.R. 17866 REPORT YEAR: 1988, 24 Pages

OPERATOR(S): **Rozek, D.H.**
AUTHOR(S): Rozek, D.H.
MINING DIV: Omineca
LOCATION: NTS 093F02W LAT. 53 09 53 LONG. 124 51 58
CLAIM(S): Dave
EXPL. TARGET: Zinc,Silver,Gold
WORK DONE: ROCK 29 sample(s);AG,AS,AU,PB,ZN
SILT 3 sample(s);AG,AS,AU,PB,ZN
SOIL 140 sample(s);AG,AS,AU,PB,ZN

GEOLOGY: Mt. Davidson at the southern terminus of the Fawnee Range consists of a volcanic pile of rhyolite, andesite, argillite and associated tuffs and breccia covered by glacial till from the west. These rocks are identified as Tertiary Ootsa Lake Group or possibly Lower Jurassic Hazelton Group.

RELATED A.R.: 12963, 15403, 16533

Wolf A.R. 16995 REPORT YEAR: 1988, 79 Pages, 9 Map(s)

OPERATOR(S): **Lucero Res.**
AUTHOR(S): Dawson, J.M.
MINING DIV: Omineca
LOCATION: NTS 093F03W LAT. 53 12 30 LONG. 125 28 00
CLAIM(S): Wolf,Wolf 2-3,Wolf 5-16,Wolf 20 Fr.,Wolf 21 Fr.
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 3500.0 ha - 2 Map(s); 1:5000
LINE 158.2 km
ROAD 31.0 km
ROCK 162 sample(s);AU,AG,AS - 3 Map(s); 1:5000
SOIL 1273 sample(s);ME - 4 Map(s); 1:5000

GEOLOGY: Tertiary felsic volcanic rocks of the Ootsa Lake Group are in fault contact with sedimentary and volcanic rocks of the Takla Group. Several large areas of epithermal silicification contain weakly anomalous to low grade gold and silver values; ore grade gold-silver values are associated with one north-trending zone centered about a silicified breccia zone. Ore controls may be associated with northeast and north trending fault zones.

RELATED A.R.: 12158, 13968
MINFILE: 093F 045

Exo A.R. 17679 REPORT YEAR: 1988, 43 Pages, 8 Map(s)

OPERATOR(S): **Tectono Res.**
AUTHOR(S): Eldridge, T.L. Leask, J.M.
MINING DIV: Omineca
LOCATION: NTS 093F05E LAT. 53 25 00 LONG. 125 42 00
CLAIM(S): Exo 1
EXPL. TARGET: Copper,Zinc,Molybdenum/Molybdenite,Tungsten,Gold,Silver
WORK DONE: EMGR 24.5 km;VLF - 1 Map(s); 1:5000
LINE 24.5 km
MAGG 24.5 km - 1 Map(s); 1:5000
SOIL 848 sample(s);ZN,CU,MO,WO,AG,AU - 6 Map(s); 1:5000

GEOLOGY: Quartz-molybdenite-pyrite-scheelite-chalcopyrite stockwork veinlets occur in a sequence of hornfelsed limy siltstones of the Takla Group. Garnet-diopside-pyrrhotite-scheelite-chalcopyrite skarns occur in the limy siltstones.

MINFILE: 093F

Nechako Range A.R. 17697 REPORT YEAR: 1988, 36 Pages, 5 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Galeschuk, C.R.
MINING DIV: Omineca
LOCATION: NTS 093F07W, 093F10W LAT. 53 30 00 LONG. 124 49 00
CLAIM(S): NR 1-7
EXPL. TARGET: Gold
WORK DONE: GEOL 3500.0 ha - 1 Map(s); 1:10 000
HMIN 40 sample(s);AU,CU,ZN,PB,AG,AS - 1 Map(s); 1:10 000
LINE 41.6 km
ROCK 53 sample(s);ME - 1 Map(s); 1:10 000
SILT 42 sample(s);AU,ME - 1 Map(s); 1:10 000
SOIL 605 sample(s);AU - 1 Map(s); 1:10 000

GEOLOGY: The area is underlain by Lower and MIddle Jurassic Hazelton Group sediments and volcanics. Small mafic stocks have intruded the area hornfelsing the sediments.

Pig A.R. 17174 REPORT YEAR: 1988, 15 Pages, 5 Map(s)

OPERATOR(S): **Lac Min.**
AUTHOR(S): Brown, R.F.
MINING DIV: Omineca
LOCATION: NTS 093F07W LAT. 53 28 00 LONG. 124 50 00
CLAIM(S): Pig,Pig 2-5
EXPL. TARGET: Gold
WORK DONE: IPOL 9.4 km - 4 Map(s); 1:5000
LINE 9.4 km - 1 Map(s); 1:5000

GEOLOGY: Middle Jurassic Hazelton Group massive volcanics underlie the west side of the claims. The central and east part of the claims is mostly covered by glacial fluvial outwash gravels, but several rusty schistose volcaniclastic outcrops contain anomalous values of mercury gold, antimony and arsenic. In the southwest area of the claims are minor outcrops of Oliogene basalts.

RELATED A.R.: 14939, 15584

Trout A.R. 16733 REPORT YEAR: 1987

OPERATOR(S): **Welcome North Mines**
AUTHOR(S): Schmidt, A.J.
MINING DIV: Omineca
LOCATION: NTS 093F10E, 093F10W LAT. 53 39 11 LONG. 124 44 36
CLAIM(S): Trout 1-3,Trout 5,Trout 13
WORK DONE: GEOL 7.0 ha
ROCK 309 sample(s);AU
ROTD 767.0 m 13 hole(s)
SAMP 671 sample(s);AU
SOIL 1191 sample(s);AU,AG,AS,SB,CU,PB,ZN
TREN 674.0 m 17 trench(es)

GEOLOGY: The Trout gold prospect is a Tertiary age epithermal system located within felsic volcanic rocks of the Ootsa Lake Group. Significant gold-silver mineralization is associated with silicification of multi-stage explosion breccias adjacent to a large fault.

RELATED A.R.: 16539

White A.R. 18191 REPORT YEAR: 1988, 59 Pages, 10 Map(s)

OPERATOR(S): **Newmont Ex. of Can.**
AUTHOR(S): Bohme, D.M.
MINING DIV: Omineca
LOCATION: NTS 093F11E, 093F06E LAT. 53 30 00 LONG. 125 05 00
CLAIM(S): White 1-4
EXPL. TARGET: Gold,Antimony,Arsenic,Mercury
WORK DONE: EMGR 27.9 km;VLF - 2 Map(s); 1:5000
GEOL 1700.0 ha - 1 Map(s); 1:5000,1:500
LINE 27.9 km
MAGG 27.9 km - 2 Map(s); 1:5000
PETR 1 sample(s)
ROCK 128 sample(s);ME - 2 Map(s); 1:500,1:5000
SILT 5 sample(s);ME
SOIL 317 sample(s);ME - 3 Map(s); 1:500,1:5000

GEOLOGY: The property is underalin predominantly by felsic volcanics of the Upper Cretaceous to Eocene Ootsa Lake Group. Major fault lineaments trend northeast to east and associated dilatant fault structures trend northwest to northeast. Mineralization includes gold, stibnite, arsenopyrite, pyrite, cinnabar, and marcasite and shows a strong spatial relationship to fracturing and brecciation. Hydrothermal alteration, dominantly quartz and chalcedony, is pronounced in structurally-controlled zones.

MINFILE: 093F

Barb-Gusty A.R. 18092 REPORT YEAR: 1988, 172 Pages, 23 Map(s)

OPERATOR(S): **Newmont Ex. of Can.**
AUTHOR(S): Bohme, D.M.
MINING DIV: Omineca
LOCATION: NTS 093F11W LAT. 53 38 00 LONG. 125 22 00
CLAIM(S): Gusty,Gusty 2-3,Gus Fr.,Gus 2 Fr.,Gus 3 Fr.,Barb 1-4
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 77.6 km;VLF - 4 Map(s); 1:5000
GEOL 2500.0 ha - 3 Map(s); 1:5000
LINE 77.6 km
MAGG 77.6 km - 4 Map(s); 1:5000
PETR 2 sample(s)
ROAD 0.5 km
ROCK 670 sample(s);ME
SILT 15 sample(s);ME
SOIL 2366 sample(s);AU,AG,SB,AS,MO,ZN - 9 Map(s); 1:5000,1:2500,1:1000
TREN 525.0 m 11 trench(es) - 3 Map(s); 1:250

GEOLOGY: The property is underlain predominantly by acid to intermediate composition volcanic rocks of the Upper Cretaceous-Eocene Ootsa Lake Group. Major fault lineaments and local zones of intense fracturing display a strong north-northeast trend. Several small, structurally-controlled gold-silver occurrences on the claims are associated with argillically altered rhyolite, local fracturing and faulting, and translucent quartz to grey chalcedonic quartz veinlets. Erratic gold-silver values persist over areas up to 3 by 5 metres in size.

MINFILE: 093F

Rhub-Barb A.R. 18189 REPORT YEAR: 1988, 345 Pages, 18 Map(s)

OPERATOR(S): **Mingold Res.**
AUTHOR(S): Taylor, K.J.
MINING DIV: Omineca
LOCATION: NTS 093F12E, 093F11W LAT. 53 37 00 LONG. 125 30 00
CLAIM(S): Rhub 11-13,Rhub 2,Rhub 4,Rhub 6,Rhub 8-9
EXPL. TARGET: Silver,Gold
WORK DONE: DIAD 1036.9 m 6 hole(s) - 1 Map(s); 1:1250
EMGR 27.5 km;VLF - 7 Map(s); 1:2500
LINE 21.7 km
ROCK 114 sample(s);ME
ROTD 1214.9 m 16 hole(s) - 2 Map(s); 1:250,1:1250
SAMP 1312 sample(s);ME
SOIL 1500 sample(s);ME - 8 Map(s); 1:2500
TREN 365.0 m 15 trench(es)

GEOLOGY: Felsic volcanics of the Upper Cretaceous to Eocene Ootsa Lake Group are cut by major fault-fracture zones which are healed by amorphous silica with pyrite-marcasite mineralization. Strong pervasive silicification and kaolinization occurs within and adjacent to the mineralization. The size and attitude of the zones are yet to be determined.

RELATED A.R.: 16593
MINFILE: 093F

Tena A.R. 17673 REPORT YEAR: 1988, 19 Pages

OPERATOR(S): **Windflower Min.**
AUTHOR(S): Ryznar, G.
MINING DIV: Omineca
LOCATION: NTS 093F12E LAT. 53 40 00 LONG. 125 40 00
CLAIM(S): Tena 1-10

CONFIDENTIAL STATUS

Boss A.R. 16797 REPORT YEAR: 1987, 38 Pages, 4 Map(s)

OPERATOR(S): **Imperial Metals**
AUTHOR(S): DeLancey, P.
MINING DIV: Omineca
LOCATION: NTS 093F13W LAT. 53 59 02 LONG. 125 48 10
CLAIM(S): Boss 25-27,Boss 1 Fr.
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 1500.0 ha - 1 Map(s); 1:5000
ROCK 187 sample(s);ME
SOIL 262 sample(s);ME - 3 Map(s); 1:5000,1:2500

GEOLOGY: The Boss claims are centred along a regional northwest trending shear characterized by zones of quartz-carbonate alteration in augite porphyry, andesite, etc. Outcrop is sparse. Rocks to the northeast are chert pebble conglomerates (Lower Cretaceous Skeena Group?), rhyolites, andesites and quartz monzonites. These rocks have locally been silicified, cut by quartz veins and have fluorite-filled fractures. To the southwest, rocks are generally bladed feldspar porphyry (Tertiary Ootsa Lake Group?). Anomalous precious metal values are locally associated with the quartz carbonate zones, quartz veins, silicification and fluorite.

MINFILE: 093F 032

NECHAKO RIVER 093F

Holy Cross A.R. 17807 REPORT YEAR: 1988, 40 Pages, 3 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Donaldson, W.
MINING DIV: Omineca
LOCATION: NTS 093F15W LAT. 53 47 00 LONG. 124 57 45
CLAIM(S): HC 1-5
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: GEOL 2350.0 ha - 1 Map(s); 1:10 000
ROCK 196 sample(s);AU,ME - 1 Map(s); 1:10 000
SILT 31 sample(s);AU,ME - 1 Map(s); 1:10 000
GEOLOGY: The property is underlain by Ootsa Lake Group rocks consisting of altered and unaltered andesites and rhyolites, tuffs and minor sediemnts. The rhyolites contain up to 3 per cent hematite. Endako Group rocks consisting of basalts, andesites, tuffs and gabbros that are unaltered and have no visible mineralization are also contained on the property.

PRINCE GEORGE 093G

Boo A.R. 17388 REPORT YEAR: 1988, 11 Pages, 1 Map(s)

OPERATOR(S): **Brett, D.H.**
AUTHOR(S): Brett, D.W.
MINING DIV: Cariboo
LOCATION: NTS 093G01E, 093G01W LAT. 53 09 33 LONG. 122 14 24
CLAIM(S): Boo 3
WORK DONE: EMGR 4.0 km;VLF - 1 Map(s); 1:5000
GEOLOGY: The claim is underlain by Upper Triassic volcanic and sedimentary rocks of the Takla Group. Bedrock is generally obscured by glacial overburden but local outcrops consist of dark green to dark grey andesites and basalts. No mineralization is known to occur on the property. Further VLF-EM work is recommended over faults outlined by an airborne survey.

Cottonwood A.R. 17278 REPORT YEAR: 1988, 58 Pages, 3 Map(s)

OPERATOR(S): **Gallant Gold Mines**
AUTHOR(S): Gonzalez, R.A. Akhurst, W.K.
MINING DIV: Cariboo
LOCATION: NTS 093G01E LAT. 53 04 40 LONG. 122 13 26
CLAIM(S): CWR 3,HO
EXPL. TARGET: Gold
WORK DONE: LINE 55.0 km
MAGG 54.3 km - 1 Map(s); 1:5000
SOIL 652 sample(s);ME - 2 Map(s); 1:5000
GEOLOGY: The claims cover an erosional window through Miocene Plateau Basalts in which the oldest exposed bedrock consists of a series of metamorphosed Permian-Pennsylvanian Cache Creek Group pelitic and argillaceous sedimentary rocks. The metasediments have been hornfelsed by a complex multiphase intrusive body composed dominantly of porphyritic quartz diorite. The contact between the intrusive and the sediments commonly contains pyrite and is usually highly silicified. All quartz veins known in the area appear to be associated with silicified zones.

Henric A.R. 16877 REPORT YEAR: 1987, 20 Pages, 3 Map(s)

OPERATOR(S): **007 Precious Metals**
AUTHOR(S): Sookochoff, L.
MINING DIV: Cariboo
LOCATION: NTS 093G01E LAT. 53 03 07 LONG. 122 10 34
CLAIM(S): Henric,Henric 1,Henric 3,Henric 5,Henric 7
EXPL. TARGET: Gold
WORK DONE: EMGR 8.0 km;VLF - 3 Map(s); 1:3000,1:1250
GEOLOGY: The claims are underlain by Jurassic shale, greywacke and conglomerate bounded by Upper Triassic Takla Group volcanics and sediments intruded by Tertiary syenitic rocks. Sulphide mineralization occurs in volcanics peripheral to and in the syenite stock, in black argillites and in quartz veins. Silicic and argillic alteration occurs in the volcanics and syenite.

Henric A.R. 16948 REPORT YEAR: 1988, 39 Pages

OPERATOR(S): **007 Precious Metals**
AUTHOR(S): Sookochoff, L.
MINING DIV: Cariboo
LOCATION: NTS 093G01E LAT. 53 03 26 LONG. 122 11 14
CLAIM(S): Henric,Osa
EXPL. TARGET: Gold
WORK DONE: DIAD 152.0 m 3 hole(s);NQ
SAMP 112 sample(s);AU
GEOLOGY: The claims are underlain by Jurassic shale, greywacke and conglomerate bounded by the Upper Triassic Takla Group of volcanics and sediments intruded by Tertiary syenitic rocks. Sulphide mineralization occurs in volcanic rocks peripheral to and in the syenite stock, in black argillites and in quartz veins. Silicic and argillic alteration is evident in the volcanics and syenite.

Mary A.R. 17178 REPORT YEAR: 1988, 41 Pages, 4 Map(s)

OPERATOR(S): **Silver Sceptre Res.**
AUTHOR(S): Akhurst, W.K.
MINING DIV: Cariboo
LOCATION: NTS 093G01E LAT. 53 08 19 LONG. 122 06 06
CLAIM(S): Mary 1
EXPL. TARGET: Gold
WORK DONE: EMGR 13.4 km;VLF - 2 Map(s); 1:5000
MAGG 13.4 km - 1 Map(s); 1:5000
SOIL 385 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: The property is covered by Quaternary till and clay. Outcrop is exposed in creek valleys and in the Ahbau Highland area. The exposure consists of Upper Triassic Takla Group porphyritic andesite breccia. A major thrust fault cuts across the eastern edge of the property.
RELATED A.R.: 15822

Shalom A.R. 17394 REPORT YEAR: 1987, 67 Pages, 31 Map(s)

OPERATOR(S): **Pinegrove Res.**
AUTHOR(S): Samchek, A. Myers, W.M.
MINING DIV: Cariboo
LOCATION: NTS 093G01E, 093H04W LAT. 53 04 00 LONG. 121 58 43
CLAIM(S): Shalom 1-4
WORK DONE: DIAD 605.6 m 6 hole(s);NQ - 1 Map(s); 1:10 000

EMGR 37.0 km;VLF - 26 Map(s); 1:2000
PERD 648.0 m 23 hole(s) - 4 Map(s); 1:400

GEOLOGY: The claims are underlain by the Proterozoic Cariboo Group (Kaza and Snowshoe Formations). These formations contain various carbonate rocks, clastic sedimentary rocks and minor intrusive dykes. Despite low to medium effects of deformation and regional metamorphism, the rocks still commonly show original and other sedimentary features.

RELATED A.R.: 16397

Umi A.R. 18070 REPORT YEAR: 1988, 55 Pages, 1 Map(s)

OPERATOR(S): **New Global Res.**
AUTHOR(S): Lennan, W.B.
MINING DIV: Cariboo
LOCATION: NTS 093G01E LAT. 53 09 00 LONG. 122 12 00
CLAIM(S): UMI 1-4
EXPL. TARGET: Gold,Copper,Zinc
WORK DONE: HMIN 9 sample(s);ME
SILT 11 sample(s);ME
SOIL 106 sample(s);ME - 1 Map(s); 1:5000

GEOLOGY: The property lies within the northwest trending Quesnel Trough which is predominently underlain by Upper Triassic to Lower Jurassic Takla Group. This unit consists of andesite flows, tuffs, agglomerate, basalt, breccia and argillite. The northwestern end of a sliver of Jurassic aged shale, greywacke and conglomerate extends onto the Umi 4 claim. Early Cretaceous intrusions of diorite have been mapped both to the north and south of the property. Visible gold has been found in heavy minerals.

RELATED A.R.: 14396

Umi A.R. 16972 REPORT YEAR: 1988, 23 Pages, 2 Map(s)

OPERATOR(S): **Reymont Res.**
AUTHOR(S): Hermary, R.G. White, G.E.
MINING DIV: Cariboo
LOCATION: NTS 093G01E LAT. 53 09 48 LONG. 122 12 12
CLAIM(S): Umi 3-4
WORK DONE: MAGA 80.0 km - 2 Map(s); 1:10 000

GEOLOGY: The Umiti Creek property lies within the northwesterly trending Quesnel Trough which is predominantly underlain by the Upper Triassic-Lower Jurassic Takla Group consisting of andesite flows, tuffs, agglomerate, basalt, breccia and argillite. The northwestern end of a sliver of Jurassic shale, greywacke and conglomerate extends onto the Umi 4 claim. Early Cretaceous intrusions have been mapped both to the north and south of the subject property.

Ahbau A.R. 17309 REPORT YEAR: 1988, 552 Pages, 30 Map(s)

OPERATOR(S): **Gabriel Res.**
AUTHOR(S): Newton, D.
MINING DIV: Cariboo
LOCATION: NTS 093G01W LAT. 53 12 08 LONG. 122 22 00
CLAIM(S): G 22-24,G 27-32
EXPL. TARGET: Gold,Copper,Lead,Zinc
WORK DONE: EMGR 34.4 km;VLF - 6 Map(s); 1:2500
GEOL 600.0 ha - 3 Map(s); 1:2500
HMIN 32 sample(s);ME
PERD 6210.0 m 75 hole(s) - 6 Map(s); 1:2500,1:250
RECL 1.7 ha
ROAD 7.8 km
SAMP 4301 sample(s);ME
SILT 213 sample(s);ME - 2 Map(s); 1:10 000
SOIL 2435 sample(s);ME - 12 Map(s); 1:2500
TREN 940.0 m 94 trench(es) - 1 Map(s); 1:2500

GEOLOGY: The property is primarily underlain by Upper Triassic Takla Group volcanic and sedimentary rocks intruded by Lower Cretaceous granitic dykes and stocks. Early Tertiary sediments overlie Takla Group rocks in the southwest parts of Ahbau Creek.

RELATED A.R.: 11061, 13211, 13712, 15084, 15744, 15927
MINFILE: 093G 007

Boo A.R. 17389 REPORT YEAR: 1988, 11 Pages, 2 Map(s)

OPERATOR(S): **Duke Min.**
AUTHOR(S): Brett, D.W.
MINING DIV: Cariboo
LOCATION: NTS 093G01W LAT. 53 10 48 LONG. 122 17 00
CLAIM(S): Boo 1
WORK DONE: EMGR 6.6 km;VLF - 2 Map(s); 1:2857

GEOLOGY: The claim is underlain by Upper Triassic volcanic and sedimentary rocks of the Takla Group. Bedrock is generally obscured by glacial overburden but local outcrops consist of dark green to dark grey andesites and basalts. No mineralization is known to occur on the property. The electromagnetic anomaly in the southwest part of the Boo 1 claims should be further explored to the north of Ahbau Creek.

Sue A.R. 17329 REPORT YEAR: 1988, 16 Pages, 4 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Baerg, R.J.
MINING DIV: Cariboo
LOCATION: NTS 093G01W, 093G08W LAT. 53 14 13 LONG. 122 24 09
CLAIM(S): Sue 1-2
WORK DONE: GEOL 200.0 ha - 1 Map(s); 1:5000
ROCK 3 sample(s);ME
SOIL 194 sample(s);ME - 3 Map(s); 1:5000

GEOLOGY: The claims are underlain by interbedded Triassic-Jurassic andesites and clastic sediments. The sediments are locally very graphitic and conductive and are extensively hornfelsed proximal to a large granodiorite intrusive.

Fraser River Placer A.R. 17524 REPORT YEAR: 1988, 159 Pages, 15 Map(s)

OPERATOR(S): **MineQuest Ex. Assoc.**
AUTHOR(S): Campbell, K.V.
MINING DIV: Cariboo
LOCATION: NTS 093G02E LAT. 53 10 17 LONG. 122 41 32
CLAIM(S): Rosebud,Venus,Mouse,Suzy
EXPL. TARGET: Gold
WORK DONE: BIOG 363 sample(s);ME
MAGG 77.0 km - 11 Map(s); 1:5000,1:2500
PERD 854.9 m 10 hole(s) - 4 Map(s); 1:400 000,1:5000,1:600

GEOLOGY: The area is underlain by Lower-Middle Paleozoic argillite, phyllite, siliceous quartzite and limestone. Regional and local metamorphism by granodiorite-diorite intrusions of Lower Jurassic(?) age is evident. Metasedimentary rocks are intensely fractured, folded and faulted. Quartz veins are common.

PRINCE GEORGE 093G

MINFILE: 093G

Tiger A.R. 17548 REPORT YEAR: 1988, 51 Pages, 4 Map(s)

OPERATOR(S): **Lac Min.**
AUTHOR(S): So, Y.M. Hogan, J.
MINING DIV: Cariboo
LOCATION: NTS 093G07E LAT. 53 21 00 LONG. 122 45 00
CLAIM(S): Tiger,Tiger 2
EXPL. TARGET: Gold,Arsenic
WORK DONE: LINE 21.3 km
ROCK 24 sample(s);ME
SOIL 553 sample(s);AU,AS - 4 Map(s); 1:2500
GEOLOGY: The property is underlain by Upper Triassic argillite with local siltstone and sandstone interbeds. The beds strike east to northeast. These sediments are overlain by Jurassic augite porphyry and intruded by minor dacite and granitic dykes. The Pinchi Fault cuts the southwest of the claim.

Anomalous values of arsenic, gold and antimony are found in some northwest trending shear zones and in sericite-carbonate altered augite porphyry.

RELATED A.R.: 16520

Jen A.R. 17805 REPORT YEAR: 1988, 18 Pages, 9 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Bradish, L. Maxwell, G.
MINING DIV: Cariboo
LOCATION: NTS 093G14W LAT. 53 52 00 LONG. 123 25 00
CLAIM(S): Jen 1-3
EXPL. TARGET: Gold
WORK DONE: GEOL 1500.0 ha - 2 Map(s); 1:2500
IPOL 2.0 km
LINE 60.0 km
MAGG 50.0 km - 1 Map(s); 1:5000
SOIL 286 sample(s);AU,AG,CU,PB,ZN,AS - 6 Map(s); 1:5000
GEOLOGY: The property is underlain by Permian Cache Creek Group sediments and Upper Triassic to Lower Jurassic Takla Group volcanics which have been cut by northwest and east trending fault structures. Two potential gold bearing horizons have been outlined by induced polarization, magnetic and soil geochemistry.
RELATED A.R.: 14037, 15127

MCBRIDE 093H

Babcock A.R. 17844 REPORT YEAR: 1988, 46 Pages, 5 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Pride, K.R.
MINING DIV: Cariboo
LOCATION: NTS 093H03E LAT. 53 01 29 LONG. 121 14 06
CLAIM(S): Tinsdale 1-4
EXPL. TARGET: Lead,Zinc
WORK DONE: SOIL 1056 sample(s);CU,PB,ZN,AG,BA - 5 Map(s); 1:5000
GEOLOGY: The property is underlain by black shale, green phyllite and limestone of Cambrian age on its east half and black slate, argillite and cherty argillite, black limestone and silicified limestone of Ordovician to Mississippian age on the west. Isolated outcrops of Upper Silurian-Lower Devonian chert breccia occur on the Tinsdale 1 claim.
RELATED A.R.: 15009, 15366, 16284

Proserpine A.R. 16981 REPORT YEAR: 1987, 118 Pages, 14 Map(s)

OPERATOR(S): **Bonaventure Res.**
AUTHOR(S): Campbell, K.V.
MINING DIV: Cariboo
LOCATION: NTS 093H03W LAT. 53 01 37 LONG. 121 28 45
CLAIM(S): Gogetter,General Currie,Blighty,True Blue,Hard Cash,Independance,Kitchener,Tipperary,Warspite, Hackle,Discovery,Jubitor,Antler,Star Fr.,Grouse
EXPL. TARGET: Gold
WORK DONE: DIAD 644.6 m 6 hole(s);NQ - 6 Map(s); 1:250
GEOL 1000.0 ha - 4 Map(s); 1:5000,1:250
RECL
ROAD 20.0 km
ROCK 865 sample(s);PB,ZN,AG,AS,AU,FE,BI - 3 Map(s); 1:2500
TOPO 1000.0 ha
TREN 899.0 m 3 trench(es) - 1 Map(s); 1:400
GEOLOGY: The claims are underlain by Paleozoic, northeasterly dipping micaceous quartzites and phyllites lying along the principal axis of the Barkerville Gold Belt. Numerous gold-bearing quartz veins have been explored in the past. The exploration target is a white, silicified quartzite, 10 metres thick, with average analyses of 1.133 ppm gold and which also contains numerous quartz veins averaging 3.86 ppm gold.
RELATED A.R.: 12263
MINFILE: 093H 021, 093H 048, 093H 049, 093H 050, 093H 051, 093H 052

Barkerville A.R. 17302 REPORT YEAR: 1988, 34 Pages

OPERATOR(S): **Mark Management**
AUTHOR(S): Akhurst, W.K.
MINING DIV: Cariboo
LOCATION: NTS 093H04E LAT. 53 02 08 LONG. 121 43 13
CLAIM(S): Grub 1-2,MH 19,May 1
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 0.8 km;VLF
LINE 6.2 km
MAGG 0.8 km
SOIL 238 sample(s);ME
GEOLOGY: The Barkerville prospect lies within metamorphosed Devonian or Mississippian sediments overlain by the Mississippian-Permian Dragon Mountain and Downey Creek Successions. The Devonian sediments are comprised predominantly of clastic rocks with lesser amounts of carbonate rocks. The rocks have been subjected to low-grade regional metamorphism and intense deformation, but they still commonly show bedding and other sedimentary features. Deformation has impressed a secondary foliation on most clastic units and most rocks have a marked dimensional orientation involving mica, quartz, feldspar and even carbonate minerals.

EML A.R. 17432 REPORT YEAR: 1988, 33 Pages, 1 Map(s)

OPERATOR(S): **Actoma Res.**
AUTHOR(S): Myers, W.H.

MINING DIV:	Cariboo	
LOCATION:	NTS 093H04E	LAT. 53 08 00 LONG. 121 33 00
CLAIM(S):	EML 3	
EXPL. TARGET:	Gold	
WORK DONE:	OBDR 76.8 m 5 hole(s)	
	PERD 140.2 m 7 hole(s);98mm - 1 Map(s); 1:10 000	
GEOLOGY:	Bedrock consists of phyllites, argillites, quartzites, and limestones of the Paleozoic age Cariboo Group. North trending faults with quartz and pyrite contain free gold and gold in pyrite. Argillites are altered to graphite near faults and are good conductors. Relacement of limestone with pyrite also produces gold values.	
RELATED A.R.:	12023, 13630, 16109	

Grub Gulch A.R. 16773 REPORT YEAR: 1987

OPERATOR(S):	**356192 Alberta**	
AUTHOR(S):	Maguire, P.J. Mickelsen, S.P.	
MINING DIV:	Cariboo	
LOCATION:	NTS 093H04E	LAT. 53 01 37 LONG. 121 42 03
CLAIM(S):	PML 6520	
WORK DONE:	META 14 sample(s)	
	PITS 14 pit(s)	
	RECL	
	ROAD 2.0 km	
	SEIS 1.3 km	
	STRI 1.0 ha	
	TREN 550.0 m 8 trench(es)	
GEOLOGY:	Seismic surveys, trenching and processing of gravels from bulk samples indicate the presence of old river channels with some minor gold values.	
RELATED A.R.:	08824	

Jackpot A.R. 17268 REPORT YEAR: 1988, 22 Pages

OPERATOR(S):	**Billwiller, J.A.**	
AUTHOR(S):	Gibson, N.	
MINING DIV:	Cariboo	
LOCATION:	NTS 093H04E	LAT. 53 03 21 LONG. 121 36 09
CLAIM(S):	Jackpot 10	
WORK DONE:	EMGR 2.1 km;VLF	
GEOLOGY:	The area is underlain by the Downey Creek Succession consisting of micaceous quartzite, slate, limestone and metatuff.	

Logan A.R. 17116 REPORT YEAR: 1988, 34 Pages, 4 Map(s)

OPERATOR(S):	**Gallant Gold Mines**	
AUTHOR(S):	Gonzalez, R.A. Akhurst, W.K.	
MINING DIV:	Cariboo	
LOCATION:	NTS 093H04E	LAT. 53 05 00 LONG. 121 42 00
CLAIM(S):	Logan,Jumbo,Eldorado	
EXPL. TARGET:	Gold	
WORK DONE:	LINE 16.1 km	
	MAGG 16.1 km - 2 Map(s); 1:5000	
	SOIL 238 sample(s);ME - 2 Map(s); 1:5000	
GEOLOGY:	Cariboo Group clastic and carbonate rocks have been intruded by granitic rocks. These rocks have been subjected to low grade regional metamorphism and intense deformation. There is less than 1 per cent outcrop, but, where exposed, altered bedrock shows extensive stockwork-type quartz veining.	
RELATED A.R.:	13252	

Mt. Nelson A.R. 18011 REPORT YEAR: 1988, 30 Pages, 12 Map(s)

OPERATOR(S):	**Winex Res.**	
AUTHOR(S):	Borovic, I.	
MINING DIV:	Cariboo	
LOCATION:	NTS 093H04E	LAT. 53 04 00 LONG. 121 44 00
CLAIM(S):	Acme,Oslo,Wonder 1,Three Star 1-2,Three Star 4,Star 3,Acme 1,Viking 1-3,Star Fr.,Acme Fr.	
EXPL. TARGET:	Gold,Silver,Lead	
WORK DONE:	EMGR 25.0 km; VLF - 4 Map(s); 1:5000	
	GEOL 1800.0 ha - 1 Map(s); 1:10 000	
	LINE 63.0 km	
	MAGG 20.0 km - 1 Map(s); 1:5000	
	SOIL 1260 sample(s);AG,PB,ZN - 6 Map(s); 1:5000	
	TOPO 1800.0 ha	
GEOLOGY:	A thick series of pre-Cambrian metamorphosed sedimentary rocks underlie the property in a broad anticlinorium whose axis trends about north 55 west, from Mt. Pinkerton and Amador to Mt. Nelson. Quartz veins up to about one metre wide occur in thinly bedded quartzites and argillaceous schists. The veins are mineralized with ankerite, pyrite galena, sphalerite, silver and gold.	
RELATED A.R.:	05554, 06668, 07734, 11672	
MINFILE:	093H 057	

Sugar Creek A.R. 16755 REPORT YEAR: 1987

OPERATOR(S):	**Poschner, M.**	
AUTHOR(S):	Campbell, K.V.	
MINING DIV:	Cariboo	
LOCATION:	NTS 093H04E	LAT. 53 10 32 LONG. 121 43 29
CLAIM(S):	JJF,Frost,Frost II	
WORK DONE:	DIAD 120.0 m 6 hole(s);AQ	
	GEOL 2000.0 ha	
	ROAD 4.0 km	
	ROCK 150 sample(s);AU,AG	
	SAMP 15 sample(s);PB,ZN,AU,AG	
GEOLOGY:	The claims are underlain by Devonian-Mississippian black phyllites, Mississippian-Permian micaceous quartzite and Permian limestone. The rock units are folded by northwest trending folds. There are several gold-bearing quartz veins with pyrite, galena and sphalerite. Copper stained quartzites outcrop in the north part of the claims. Boulders of brecciated, coarse sphalerite vein quartz and quartzite occur in Sugar Creek.	
RELATED A.R.:	10586, 12895, 13669	

Wells A.R. 17276 REPORT YEAR: 1988, 28 Pages

OPERATOR(S):	**Wells Gold**	
AUTHOR(S):	Campbell, K.V.	
MINING DIV:	Cariboo	
LOCATION:	NTS 093H04E	LAT. 53 07 30 LONG. 121 37 30
CLAIM(S):	Whipsaw 2	
EXPL. TARGET:	Gold	
WORK DONE:	DIAD 219.0 m 1 hole(s); NQ	
	ROAD 3.8 km	
	SAMP 9 sample(s);ME	

GEOLOGY: Devonian to Permian? black phyllite, gray micaceous quartzite, and limestone of an overturned limb of an antiform dip moderately to the northeast. Mineralization is fine-grained pyrite in laminations and bands in fine crystalline limestone.

Willow A.R. 17687 REPORT YEAR: 1988, 15 Pages

OPERATOR(S): **Ruza, J.**
AUTHOR(S): Von Huizen, G.L.
MINING DIV: Cariboo
LOCATION: NTS 093H04E, 093H04W LAT. 53 07 00 LONG. 121 45 00
CLAIM(S): Willow,Willow I
EXPL. TARGET: Gold
WORK DONE: LINE 18.5 km
ROCK 7 sample(s);ME
SOIL 40 sample(s);AU,AG,ZN,CU
GEOLOGY: Quartz veins bearing gold occur in greenstones of Mississippian age. Soil samples contain as much as 2680 ppb gold.
MINFILE: 093H 074, 093H 102, 093H 103

Yuma A.R. 17355 REPORT YEAR: 1988, 21 Pages, 12 Map(s)

OPERATOR(S): **Dyakowski, A.**
AUTHOR(S): Myers, W.H.
MINING DIV: Cariboo
LOCATION: NTS 093H04E LAT. 53 07 14 LONG. 121 33 21
CLAIM(S): Yuma
EXPL. TARGET: Gold
WORK DONE: EMGR 8.7 km;VLF - 12 Map(s); 1:10 000,1:2000
GEOLOGY: Bedrock is composed of argillite, phyllite, quartzite and limestone of the Cambrian Cariboo Group. Northerly trending faults are evident on the east side of the claim. Northeast fractures are filled with quartz, pyrite and gold mineralization. Replacement of limestone lenses also occurs. Alteration of argillite to graphite with pyrite and gold mineralization is also evident.

Lightning Creek(Wingdam) A.R. 17010 REPORT YEAR: 1988, 61 Pages, 9 Map(s)

OPERATOR(S): **Rise Res.**
AUTHOR(S): Gonzalez, R.A. Akhurst, W.K.
MINING DIV: Cariboo
LOCATION: NTS 093H04W LAT. 53 01 42 LONG. 121 57 30
CLAIM(S): Wing 2,Free,Dam,Wing,Wingdam,HY
EXPL. TARGET: Gold
WORK DONE: EMGR 46.1 km;VLF - 4 Map(s); 1:5000
LINE 46.1 km
MAGG 46.1 km - 2 Map(s); 1:5000
ROAD 0.8 km
ROCK 2 sample(s);ME
SOIL 685 sample(s);ME - 3 Map(s); 1:5000
GEOLOGY: The property straddles the contact between Lower Paleozoic metamorphosed sediments of the Cariboo Group and Mesozoic, mainly volcanic rocks of the Quesnel Trough. The Cariboo Group, which is present in the eastern portion of the property, is comprised predominantly of clastic rocks with lesser amounts of carbonate rocks. The rocks of the Quesnel Trough include a variety of mafic and intermediate volcanics, argillites, hornblende diorite and occasionally felsic intrusive rocks. Quartz veins appear to be associated with felsic intrusives.
RELATED A.R.: 06295, 07094, 07540, 07550, 08269, 09740, 10640, 10815, 12738, 12950, 16113

LF A.R. 16868 REPORT YEAR: 1987, 20 Pages, 2 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Savell, M.J.
MINING DIV: Cariboo
LOCATION: NTS 093H06E LAT. 53 22 34 LONG. 121 09 21
CLAIM(S): LF 1-4
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: GEOL 2000.0 ha - 1 Map(s); 1:25 000
HMIN 7 sample(s);AU,AG,CU,PB,ZN,AS
ROCK 15 sample(s);ME - 1 Map(s); 1:25 000
SILT 23 sample(s);ME
GEOLOGY: The property is underlain by Upper Proterozoic-Early Cambrian argillites, limestones and quartzites. Quartz veins up to 10 metres in width are found in faults in quartzites.

Bowron River A.R. 17754 REPORT YEAR: 1988, 32 Pages, 1 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Campbell, T.
MINING DIV: Cariboo
LOCATION: NTS 093H06W LAT. 53 19 01 LONG. 121 25 00
CLAIM(S): C.R. 5-12
WORK DONE: HMIN 90 sample(s);CU,ZN,PB,AG,MO,AU,AS
SILT 12 sample(s);CU,ZN,PB,AG,MO,AU,AS
SOIL 233 sample(s);CU,ZN,PB,AG,MO,AU,AS - 1 Map(s); 1:25 000
GEOLOGY: The property is underlain by pillowed basalts, cherts, intermediate to felsic breccias and basaltic flows of the Mississippian Slide Mountain Group. Several subcropping zones of heavily pyritic tuffs, pyritic breccias and quartz-carbonate altered chalcedonic breccias have been found by prospecting.
RELATED A.R.: 16121

Dock A.R. 18035 REPORT YEAR: 1988, 11 Pages, 2 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Savell, M.J.
MINING DIV: Cariboo
LOCATION: NTS 093H06W LAT. 53 29 00 LONG. 121 20 00
CLAIM(S): Dock 24
EXPL. TARGET: Lead,Zinc,Gold
WORK DONE: LINE 3.7 km
SOIL 100 sample(s);AU,PB,ZN - 2 Map(s); 1:2500
GEOLOGY: The property is underlain by Upper Proterozoic shales and limestones of the Isaac and Cunningham formations. The soil survey did not detect any significant gold, lead or zinc anomalies. No outcrop was observed in the grid area. No further work is recommended.
RELATED A.R.: 16549, 17599, 17612

Dominion Creek A.R. 17599 REPORT YEAR: 1988, 203 Pages, 42 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Savell, M.J.
MINING DIV: Cariboo
LOCATION: NTS 093H06W LAT. 53 27 00 LONG. 121 16 10
CLAIM(S): AK I-II

MCBRIDE 093H

EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: DIAD 2783.5 m 53 hole(s);BQ - 42 Map(s); 1:1000,1:500,1:200
ROAD 6.0 km
SAMP 1016 sample(s);AU,AG,PB,ZN
GEOLOGY: *The property lies in the Cariboo Mountains and is underlain by* Upper Proterozoic to Cambrian continental margin argillites and limestones of the Isaac and Cunningham Formations. These rocks have been subjected to periods of intense deformation which have resulted in emplacement of numerous quartz veins, stringer breccia and silicified zones mineralized with gold, silver, lead, zinc and copper.
RELATED A.R.: 16549
MINFILE: 093H 133

Dominion Creek A.R. 17612 REPORT YEAR: 1988, 49 Pages, 2 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Savell, M.J.
MINING DIV: Cariboo
LOCATION: NTS 093H06W LAT. 53 27 00 LONG. 121 17 00
CLAIM(S): Dock 3,Dock 12,Dock 14a,Dock 15-16,Dock 18-19,LF 5-6
EXPL. TARGET: Gold
WORK DONE: GEOL 4500.0 ha - 1 Map(s); 1:25 000
HMIN 12 sample(s);AU,AG,CU,PB,ZN
PROS 4500.0 ha
ROCK 29 sample(s);AU,ME
SILT 17 sample(s);AU,ME - 1 Map(s); 1:25 000
GEOLOGY: The property lies in the Cariboo Mountains of the Omineca Belt, and is underlain by Upper Proterozoic to Cambrian continental margin sediments including quartzite, sandstone, siltstone, shale and limestone. During deformation, numerous quartz veins were emplaced in structural openings along bedding planes, foliation planes and cross-cutting faults.
RELATED A.R.: 16549, 17599

In A.R. 17018 REPORT YEAR: 1988, 25 Pages, 13 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Bradish, L. Savell, M.J.
MINING DIV: Cariboo
LOCATION: NTS 093H06W LAT. 53 23 00 LONG. 121 23 00
CLAIM(S): IN 18-27
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: EMGR 2.0 km;SE88 - 1 Map(s); 1:2500
GEOL 100.0 ha - 1 Map(s); 1:2500
HYDG 5 sample(s);PB,ZN,CU
IPOL 2.9 km - 4 Map(s); 1:2500
LINE 28.7 km - 2 Map(s); 1:10 000
MAGG 6.0 km - 2 Map(s); 1:2500
ROCK 14 sample(s);ME
SOIL 1109 sample(s);PB,ZN - 3 Map(s); 1:10 000,1:5000
GEOLOGY: The property is underlain by Hadrynian to Cambrian sequences of clastic and carbonate sediments of the Cariboo Group. A series of pyritic quartzites and sandstones trend north-northwest across the property, forming a long, heavily oxidized zone visible for 3 kilometres. Attractive lead-zinc-silver soil geochemical and induced polarization anomalies have been detected over this zone.
RELATED A.R.: 15655

WD A.R. 17766 REPORT YEAR: 1988, 56 Pages, 9 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Pride, K.R.
MINING DIV: Cariboo
LOCATION: NTS 093H06W LAT. 53 27 00 LONG. 121 27 00
CLAIM(S): WD 3,WD 14-16
EXPL. TARGET: Lead,Zinc
WORK DONE: GEOL 300.0 ha - 1 Map(s); 1:10 000
SILT 76 sample(s);CU,PB,ZN,AG,BA
SOIL 1204 sample(s);CU,PB,ZN,AG,BA - 8 Map(s); 1:10 000,1:5000
GEOLOGY: The majority of the property is underlain by pyritic quartzite of the Yanks Peak Formation and Ordovician to Lower Mississippian black and grey siliceous mudstone of the Black Stuart Group. A silicified quartz-barite breccia occupies a major structural zone in the Black Stuart Group. Mineralization consists of very minor pyrite-sphalerite-galena in the matrix of the breccia. Pyrite-quartz-sericite float boulders carry minor sphalerite and galena as well as geochemically anomalous values in mercury, arsenic and gold.
MINFILE: 093H 072

Dome Slate A.R. 16760 REPORT YEAR: 1987

OPERATOR(S): **Rogac, A.J. MacDonald, R.E.**
AUTHOR(S): Rogac, A.J. MacDonald, R.E.
MINING DIV: Cariboo
LOCATION: NTS 093H11E, 093H10W LAT. 53 41 32 LONG. 121 00 00
CLAIM(S): L132R
WORK DONE: DIAD 24.4 m 3 hole(s)
META 2 sample(s)
STRI
GEOLOGY: Overburden varies from 0.6-7.6 metres where mudstones, shales and phyllites overlie the target slate. Surface exposures of the slate also occur.
RELATED A.R.: 15769

MCLEOD LAKE 093J

Com A.R. 17561 REPORT YEAR: 1988, 80 Pages, 1 Map(s)

OPERATOR(S): **Castello Res.**
AUTHOR(S): Payne, J.G. Sisson, W.G.
MINING DIV: Cariboo
LOCATION: NTS 093J01W LAT. 54 04 33 LONG. 122 19 00
CLAIM(S): Com 1-2
EXPL. TARGET: Lead,Zinc,Silver
WORK DONE: DIAD 871.0 m 6 hole(s);NQ - 1 Map(s); 1:600
GEOLOGY: The claims are underlain by a north trending succession of gneiss, limestone, argillite and andesite with lesser dacite. Gneiss and limestone have been altered to epidote and garnet skarn along their mutual contact. The skarn contains bands of massive sphalerite and galena. All rocks, including the skarn, are intruded by a swarm of felsite and quartz-feldspar porphyry dykes.
MINFILE: 093J 001

MCLEOD LAKE 093J

PM A.R. 17808 REPORT YEAR: 1988, 11 Pages, 2 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): MacArthur, R.
MINING DIV: Omineca
LOCATION: NTS 093J13E, 093J13W LAT. 54 58 43 LONG. 123 44 43
CLAIM(S): PM
EXPL. TARGET: Copper,Molybdenum/Molybdenite
WORK DONE: SOIL 124 sample(s);CU,AG,MO,AU - 2 Map(s); 1:5000
GEOLOGY: GSC map 1204 indicates the area is probably underlain by rocks of the Wolverine Complex.

TSIL A.R. 17547 REPORT YEAR: 1988, 17 Pages, 12 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Maxwell, G.
MINING DIV: Cariboo
LOCATION: NTS 093J13E, 093K16E LAT. 54 50 00 LONG. 124 00 00
CLAIM(S): TSIL 1-9
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: LINE 83.5 km
SOIL 650 sample(s);AU,AG,CU,ZN,PB - 12 Map(s); 1:5000
GEOLOGY: The TSIL property is underlain by Upper Triassic to Lower Jurassic Takla Group sediments and volcanics. The area lies to the southeast of a large intrusive complex and has been mildly hornfelsed. No mineralization has been located to date.

Alpha (Beta) A.R. 17216 REPORT YEAR: 1988, 36 Pages, 1 Map(s)

OPERATOR(S): **Peters, E.S.**
AUTHOR(S): Poloni, J.R.
MINING DIV: Cariboo
LOCATION: NTS 093J13W LAT. 54 58 16 LONG. 123 47 02
CLAIM(S): Alpha 1-3,Beta 2,Beta 4
EXPL. TARGET: Copper,Gold
WORK DONE: ROCK 20 sample(s);AG,AS,CU,PB,ZN,AU
SILT 26 sample(s);ME
SOIL 95 sample(s);AG,AS,CU,PB,ZN,AU - 1 Map(s); 1:10 000
GEOLOGY: Upper Triassic Takla Group volcanics and sediments contain copper and gold in quartz veins and stringer zones.

Windy A.R. 17873 REPORT YEAR: 1988, 14 Pages, 19 Map(s)

OPERATOR(S): **Placer Dome**
AUTHOR(S): Cannon, R.W.
MINING DIV: Cariboo
LOCATION: NTS 093J13W LAT. 54 57 00 LONG. 123 49 39
CLAIM(S): Windy 1-2,Windy 5
EXPL. TARGET: Copper,Gold,Palladium
WORK DONE: IPOL 24.6 km - 19 Map(s); 1:5000
GEOLOGY: The property has widespread overburden cover, however, the north and northeasterly part may contain Upper Triassic Takla Group andesitic and basaltic flows, tuffs and breccias. The southern part contains diorites and metadiorites. Alteration consists of chlorite, epidote, carbonate and sericite. Northeast trending shearing is prevalent to some degree in most outcrops.
RELATED A.R.: 14449, 16597
MINFILE: 093J 024

Opus A.R. 18101 REPORT YEAR: 1988, 23 Pages, 5 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Westcott, M.G.
MINING DIV: Cariboo
LOCATION: NTS 093J14E LAT. 54 50 06 LONG. 123 07 30
CLAIM(S): Opus 1-4
EXPL. TARGET: Gold,Silver,Copper,Zinc
WORK DONE: PROS 2000.0 ha - 1 Map(s); 1:16 450
ROCK 20 sample(s);AU,AG,PB,ZN,CU,AS,HG
SAMP 12 sample(s);AU,AG,PB,ZN,CU,AS,HG
SILT 60 sample(s);AU,AG,PB,ZN,CU,AS,HG - 4 Map(s); 1:16 450
SOIL 47 sample(s);AU,AG,PB,ZN,CU,AS,HG
GEOLOGY: The Opus property is situated along the northwest trending contact between Upper Paleozoic Slide Mountain Group and Triassic-Jurassic Takla Group. The contact which separates Takla Group augite porphyry from the Slide Mountain sediments may be fault related. Foliation locally present in both sediments and augite porphyry is subparallel to the contact. Ten by 10 metre carbonatized patches host pyrite content of up to 2 per cent.

Plasway A.R. 16880 REPORT YEAR: 1986, 64 Pages, 1 Map(s)

OPERATOR(S): **Synd. 488888**
AUTHOR(S): Richards, G.G. Hajek, J.H.
MINING DIV: Cariboo
LOCATION: NTS 093J14E, 093J14W LAT. 54 56 04 LONG. 123 10 11
CLAIM(S): Sol 1-2,Sol 5-6,Horn 1-4
EXPL. TARGET: Gold
WORK DONE: LINE 5.0 km
PITS 23 pit(s) - 1 Map(s); 1:50 000
SAMP 2 sample(s);ME
GEOLOGY: The property lies within the Omineca Intrusions at the northeast end of the Nechako Plateau, west of the Rocky Mountain Trench. It is covered with widespread glacial deposits. The plateau consists of basalts, andesites, argillites and cherts. Much of the claim area is in a region of low topographic relief varying from a high of 1036 metres to a low of 823 metres with outcrops and sub-outcrops on side slopes.
MINFILE: 093J 013

FORT FRASER 093K

Fish Lake A.R. 18072 REPORT YEAR: 1988, 18 Pages, 3 Map(s)

OPERATOR(S): **Nation River Res.**
AUTHOR(S): Campbell, C.J.
MINING DIV: Omineca
LOCATION: NTS 093K01E LAT. 54 13 30 LONG. 124 11 00
CLAIM(S): Fish Lake 29001
EXPL. TARGET: Gold
WORK DONE: GEOL 25.0 ha - 1 Map(s); 1:500
ROCK 38 sample(s);ME - 1 Map(s); 1:500
SOIL 18 sample(s);ME - 1 Map(s); 1:500
GEOLOGY: The Fish Lake property is underlain by Cache Creek Group

sediments and volcanics which have been intruded by late hornblende porphyry dykes. Gold values of up to 1.46 ppm occur across 2 metres of carbonate altered and silicified andesite.

RELATED A.R.: 15350

Bruce A.R. 16786 REPORT YEAR: 1987, 24 Pages, 3 Map(s)

OPERATOR(S): **Imperial Metals**
AUTHOR(S): DeLancey, P.
MINING DIV: Omineca
LOCATION: NTS 093K04W LAT. 54 05 00 LONG. 125 47 02
CLAIM(S): Bruce 1-2
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 400.0 ha - 2 Map(s); 1:5000,1:1000
SOIL 133 sample(s);ME - 1 Map(s); 1:1000

GEOLOGY: The claims are underlain by andesitic volcanics of the Tertiary Ootsa Lake Group (?) overlain by conglomerates and siltstones correlative with the Lower Cretaceous Skeena Group. The showings consist of quartz veins and stockworks cutting andesitic rocks. The main quartz vein is approximately 0.5 metres wide with an attitude of 290 degrees. The quartz veins locally contain disseminated pyrite. Sampling has indicated values of up to 7.7 grams per tonne gold. An area of altered rhyolitic rocks containing vugs and fractures of chalcedony and locally bitumen, occurs on the south portion of the claims.

Deck A.R. 17529 REPORT YEAR: 1988, 25 Pages

OPERATOR(S): **G.E. Rayner & Assoc.**
AUTHOR(S): Zastavnikovich, S.
MINING DIV: Omineca
LOCATION: NTS 093K05W LAT. 54 17 00 LONG. 125 52 00
CLAIM(S): Deck 1
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: HMIN 34 sample(s);ME

GEOLOGY: The region is underlain by andesitic to basaltic and minor rhyolitic rocks ranging in age from Early Mesozoic to Miocene. Sedimentary rocks are rare. Structural trends in the volcanics are uncertain, but topographic lineaments suggest northerly regional strike under thick blanket of glacial overburden.

RELATED A.R.: 06917, 07114, 07498, 08726
MINFILE: 092K 030, 092K 031

Yara A.R. 17506 REPORT YEAR: 1988, 18 Pages

OPERATOR(S): **Cazador Ex.**
AUTHOR(S): Ainsworth, B.
MINING DIV: Omineca
LOCATION: NTS 093K06E LAT. 54 15 28 LONG. 125 06 00
CLAIM(S): Yara
EXPL. TARGET: Silver,Lead,Zinc,Copper
WORK DONE: SOIL 41 sample(s);AG,AS,CU,MO,PB,ZN,HG,AU

GEOLOGY: Endako Group and Tertiary Ootsa Lake Group volcanics overlie Topley Intrusions.

Mag A.R. 17895 REPORT YEAR: 1988, 20 Pages

OPERATOR(S): **Orion Res.**
AUTHOR(S): Whiting, F.B.
MINING DIV: Omineca
LOCATION: NTS 093K07E, 093K08W LAT. 54 23 00 LONG. 124 30 00
CLAIM(S): Mag 1-2
EXPL. TARGET: Gold,Vermiculite
WORK DONE: GEOL 50.0 ha
META 2 sample(s)

GEOLOGY: A granitic appearing intrusive rock carries black mica of the vermiculite variety. The granitic rock carries small amounts of gold as do rhyolitic dykes or fine-grained quartz veins. Placer gold is being mined from the creek crossing the intrusive body, suggesting that the source occurs in this locality.

Snowbird A.R. 16766 REPORT YEAR: 1987

OPERATOR(S): **X-Cal Res.**
AUTHOR(S): Game, B.D. Sampson, C.J.
MINING DIV: Omineca
LOCATION: NTS 093K07E, 093K08W LAT. 54 27 55 LONG. 124 31 25
CLAIM(S): Snowbird 1
WORK DONE: DIAD 2680.0 m 25 hole(s);NQ
PERD 1530.0 m 57 hole(s)
SAMP 850 sample(s);AU,AG,SB

GEOLOGY: The claims are underlain by Permian-Pennsylvanian Cache Creek Group interbanded argillite, shale/slate, banded cherts, quartzites, limestone, andesite tuffs, breccias, fragmentals and serpentinite. Two quartz-mariposite veins occur in a strongly developed quartz-ankerite-mariposite zone 12-30 metres thick.

RELATED A.R.: 00520, 02764, 03520, 05136, 08613, 15261, 15732, 15853

W. Boyd A.R. 18120 REPORT YEAR: 1988, 24 Pages, 2 Map(s)

OPERATOR(S): **Lacana Min.**
AUTHOR(S): Mowat, U.
MINING DIV: Omineca
LOCATION: NTS 093K11W LAT. 54 38 00 LONG. 125 22 00
CLAIM(S): W. Boyd 1
EXPL. TARGET: Gold,Platinum,Palladium
WORK DONE: PROS 125.0 ha - 2 Map(s); 1:10 000
ROCK 20 sample(s);ME
SILT 15 sample(s);ME
SOIL 35 sample(s);ME

GEOLOGY: Outcrops on the property consist of serpentinized ultramafics, brecciated monzonite(?), black argillite, and rusty crackled dacitic volcanics(?) or a fine-grained equivalent of the monzonite. No mineralization was noted except for minor pyrite. Alteration consists of serpentinization and sericitization of the monzonite.

Butter A.R. 17294 REPORT YEAR: 1988, 26 Pages

OPERATOR(S): **Shaede, E.A.**
AUTHOR(S): Shaede, E.A.
MINING DIV: Omineca
LOCATION: NTS 093K12E LAT. 54 33 14 LONG. 125 32 44
CLAIM(S): Butter
EXPL. TARGET: Copper,Silver,Lead,Zinc
WORK DONE: ROCK 9 sample(s);ME
SILT 5 sample(s);ME
SOIL 42 sample(s);ME

GEOLOGY: Permian-Pennsylvanian Cache Creek Group(?) volcanics are sandwiched between a quartz monzonite intrusion to the west and peridotite intrusions to the east. The belt of volcanics strikes about north-northwest. A linear multielement soil anomaly has the same trend as the volcanic rocks and topographic lineament. Soil values range to 8 ppm silver, 275 ppm copper, 277 ppm lead, 975 ppm zinc, 61 ppm arsenic and 4 ppm molybdenum. No significant gold, platinum or palladium values occur.
MINFILE: 093K 054

Klone A.R. 18089 REPORT YEAR: 1988, 172 Pages, 18 Map(s)

OPERATOR(S): **Lacana Min.**
AUTHOR(S): Mowat, U.
MINING DIV: Omineca
LOCATION: NTS 093K14W LAT. 54 54 00 LONG. 125 24 00
CLAIM(S): Klone 1-8,Van 1-2,Mid
EXPL. TARGET: Gold,Chromium/Chromite
WORK DONE:
FOTO 5000.0 ha - 1 Map(s); 1:25 000
GEOL 50.0 ha - 3 Map(s); 1:500,1:1000,1:10 000
LINE 15.6 km
ROCK 276 sample(s);ME - 4 Map(s); 1:500,1:5000
SILT 58 sample(s);ME
SOIL 2593 sample(s);ME - 10 Map(s); 1:1000,1:5000,1:10 000
TREN 52.0 m 1 trench(es)
GEOLOGY: The property is underlain by harzburgite, dunite and Cache Creek volcanics and sediments. The ultramafics have been altered along structures to jade and listwanite. Mineralization consists of pyrite and arsenopyrite in heavily silicified ultramafics. An outcrop of coarse-grained stibnite was also located in heavily silicified ultramafics.
RELATED A.R.: 17173
MINFILE: 093K 043, 093K 039, 093K 072

Mount Sydney Williams A.R. 17173 REPORT YEAR: 1988, 95 Pages, 9 Map(s)

OPERATOR(S): **Lacana Min.**
AUTHOR(S): Mowat, U.
MINING DIV: Omineca
LOCATION: NTS 093K14W LAT. 54 54 00 LONG. 125 24 00
CLAIM(S): Van 1-2,Klone 1-2,Mid
EXPL. TARGET: Platinum,Gold
WORK DONE:
HMIN 9 sample(s);ME
LINE 5.0 km
PROS 1400.0 ha - 3 Map(s); 1:25 000,1:15 000
ROCK 302 sample(s);ME - 2 Map(s); 1:10 000
SILT 94 sample(s);ME - 2 Map(s); 1:10 000
SOIL 180 sample(s);ME - 2 Map(s); 1:5000
GEOLOGY: The claims are underlain by ultramafic rocks consisting of dominantly harzburgite and minor dunite. Locally, small shear zones contain auriferous listwanite. Chromite occurs in the harzburgite as stockworks and veins, and as clots and disseminations in the dunite.
MINFILE: 093K 039, 093K 043, 093K 068, 093K 072

New A.R. 17944 REPORT YEAR: 1988, 33 Pages, 2 Map(s)

OPERATOR(S): **Forbes, J.R.**
AUTHOR(S): Forbes, J.R.
MINING DIV: Omineca
LOCATION: NTS 093K14W LAT. 54 50 00 LONG. 125 16 00
CLAIM(S): New 1-4
EXPL. TARGET: Gold
WORK DONE:
GEOL 1300.0 ha - 2 Map(s); 1:5000
ROCK 30 sample(s);AU,ME
SILT 3 sample(s);ME
SOIL 20 sample(s);AU,ME
GEOLOGY: Cache Creek sediments of Pennsylvanian to Permian age are intruded by Pre-Upper Triassic Mt. Sydney Williams ultramafic. Silification, serpentinization and carbonization have occurred. Mineralization includes pyrite and mariposite with minor fuchsite.

Cripple Lake A.R. 17463 REPORT YEAR: 1988, 12 Pages, 3 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Maxwell, G.
MINING DIV: Omineca
LOCATION: NTS 093K16E LAT. 54 50 00 LONG. 124 07 00
CLAIM(S): CL 1-2
EXPL. TARGET: Copper,Gold,Lead,Silver
WORK DONE:
LINE 19.5 km
SOIL 293 sample(s);AU,AG,CU,PB,ZN - 3 Map(s); 1:5000
GEOLOGY: The Cripple Lake property is underlain by Upper Triassic to Lower Jurassic Takla Group sediments and volcanics, which appear to have been intruded by a series of diorite stocks and dykes. No mineralization has been located to date.

Max A.R. 18020 REPORT YEAR: 1988, 35 Pages, 4 Map(s)

OPERATOR(S): **United Pacific Gold**
AUTHOR(S): Schmidt, U.
MINING DIV: Omineca
LOCATION: NTS 093K16E LAT. 54 56 00 LONG. 124 03 00
CLAIM(S): Max 16,Max 18
EXPL. TARGET: Gold
WORK DONE:
SOIL 393 sample(s);AU,CU,PB,ZN,MO,AG,NI,CO - 4 Map(s); 1:5000
GEOLOGY: The property is underlain by Upper Triassic Takla Group volcanics consisting of metasediments interbedded with volcanic flows, breccias, lapilli andcrystal tuffs and associated tuffs.

Tas A.R. 16763 REPORT YEAR: 1987

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Bradish, L. Maxwell, G.
MINING DIV: Omineca
LOCATION: NTS 093K16W LAT. 54 54 20 LONG. 124 18 43
CLAIM(S): Tas 1-2,Tas 4,Tas 6-7
WORK DONE:
DIAD 1524.0 m 25 hole(s);NQ
EMGR 10.0 km;VLF
GEOL 300.0 ha
IPOL 17.0 km
LINE 188.1 km
MAGG 20.0 km
SAMP 400 sample(s);AU,AG,CU,ZN,PB
SOIL 4253 sample(s);CU,AU,ZN,PB,AG,AS
TREN 1750.0 m 23 trench(es)
GEOLOGY: The area is underlain by Upper Triassis-Lower Jurassic Takla Group volcanics and sediments intruded by a series of Upper Triassic-

FORT FRASER 093K

Lower Cretaceous stocks and batholiths. Gold mineralization is hosted in shear and fracture zones within strongly hornfelsed siltstone/tuff, andesite and hornblende-augite porphyry units.
RELATED A.R.: 15687

Tas A.R. 17234 REPORT YEAR: 1988, 33 Pages, 23 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Maxwell, G. Bradish, L.
MINING DIV: Omineca
LOCATION: NTS 093K16W LAT. 54 54 20 LONG. 124 10 43
CLAIM(S): Tas 1-7
EXPL. TARGET: Copper,Gold
WORK DONE: DIAD 261.3 m 4 hole(s);NQ - 7 Map(s); 1:1000,1:2500,1:200
EMGR 9.0 km;VLF - 1 Map(s); 1:2500
LINE 30.0 km - 1 Map(s); 1:25 000
MAGG 18.0 km - 2 Map(s); 1:2500
SAMP 102 sample(s);AU,AG,CU,ZN,PB
SOIL 1698 sample(s);CU,AU - 12 Map(s); 1:2500,1:1000
GEOLOGY: The claims are underlain by moderately to strongly hornfelsed volcanic and sedimentary rocks of the Upper Triassic-Lower Jurassic Quesnel Trough. Gold mineralization is hosted by stringer to massive pyrite, pyrrhotite and chalcopyrite in narrow fractures and shears.
RELATED A.R.: 15687, 16763
MINFILE: 093K 080

Tas East A.R. 16814 REPORT YEAR: 1987, 16 Pages

OPERATOR(S): **Halleran, A.**
AUTHOR(S): Halleran, A.A.D.
MINING DIV: Omineca
LOCATION: NTS 093K16W LAT. 54 54 12 LONG. 124 16 30
CLAIM(S): Sep 1,H&H 2
EXPL. TARGET: Copper,Gold
WORK DONE: SOIL 136 sample(s);AU
GEOLOGY: The property and surrounding area is underlain by Upper Triassic Takla Group metasedimentary and volcanic rocks intruded by Upper Jurassic or Lower Cretaceous Omineca Intrusions.
RELATED A.R.: 16196

Tas East A.R. 18100 REPORT YEAR: 1988, 87 Pages, 10 Map(s)

OPERATOR(S): **TP Res.**
AUTHOR(S): Schmidt, U.
MINING DIV: Omineca
LOCATION: NTS 093K16W LAT. 54 55 00 LONG. 124 16 00
CLAIM(S): H&H 1-2,Sep 1,Mach 1
WORK DONE: SOIL 1923 sample(s);ME - 10 Map(s); 1:5000
GEOLOGY: The property is underlain by Upper Triassic Takla Group. There is no exposure on the property, therefore the nature of the lithologies underlying the property is unknown.
RELATED A.R.: 15687, 16763
MINFILE: 093K 080

Zana A.R. 17005 REPORT YEAR: 1988, 11 Pages, 5 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Maxwell, G.
MINING DIV: Omineca
LOCATION: NTS 093K16W LAT. 54 56 20 LONG. 124 25 10
CLAIM(S): Zana 2-4
WORK DONE: LINE 24.0 km
SOIL 630 sample(s);CU,ZN,PB,AG,AU - 5 Map(s); 1:5000
GEOLOGY: The claims are underlain by Upper Triassic-Lower Jurassic Takla Group volcanics and sediments intruded by Late Cretaceous diorite. One small gold soil geochemical anomaly and a coincident copper-silver-lead soil geochemical anomaly has been outlined.

SMITHERS 093L

Dev A.R. 17680 REPORT YEAR: 1988, 131 Pages, 3 Map(s)

OPERATOR(S): **Westview Res.**
AUTHOR(S): Garagan, T.
MINING DIV: Omineca
LOCATION: NTS 093L01E LAT. 54 09 00 LONG. 126 12 00
CLAIM(S): GO 2,Dev 1-4
EXPL. TARGET: Gold,Silver,Copper,Zinc
WORK DONE: DIAD 652.6 m 4 hole(s);NQ
PETR 33 sample(s)
SAMP 350 sample(s);AU,AG,AS,CU,ZN,SB
SOIL 260 sample(s);ME - 3 Map(s); 1:5000
GEOLOGY: The main part of the property is underlain by Cretaceous Goosly Lake tuffs and flows of felsic to intermediate composition, similar to those hosting the Equity Silver silver-copper-gold deposit. The rocks have been altered and mineralized with pyrite, pyrrhotite, arsenopyrite, and minor amounts of silver, copper, gold and zinc.
RELATED A.R.: 02291, 02906

Gaul A.R. 16968 REPORT YEAR: 1988, 68 Pages, 1 Map(s)

OPERATOR(S): **Teck Ex.**
AUTHOR(S): Betmanis, A.I.
MINING DIV: Omineca
LOCATION: NTS 093L01W LAT. 54 09 30 LONG. 126 16 00
CLAIM(S): Gaul 3-4
EXPL. TARGET: Silver,Copper
WORK DONE: DIAD 1186.0 m 6 hole(s); NQ - 1 Map(s); 1:2500
SAMP 300 sample(s);CU,AG,AU,AS,PB,ZN,FE
GEOLOGY: Cretaceous Goosly lake volcaniclastic rocks are mineralized with pyrite, chalcopyrite and tetrahedrite, partly in a north-northeast trending and westerly dipping zone.
RELATED A.R.: 13943
MINFILE: 093L

Minesite A.R. 16770 REPORT YEAR: 1987

OPERATOR(S): **Equity Silver**
AUTHOR(S): Pease, R.B.
MINING DIV: Omineca
LOCATION: NTS 093L01W LAT. 54 11 22 LONG. 126 15 52
CLAIM(S): MC 1
WORK DONE: DIAD 13014.3 m 62 hole(s);NQ
SAMP 3008 sample(s);CU,AG,AU,SB,AS,FE,ZN
GEOLOGY: The deposits occur in a homoclinal Upper Jurassic-Cretaceous inlier consisting of sedimentary, pyroclastic and volcanic rocks

flanked by intrusions and surrounded by younger, unconformable Teritary andesitic-basaltic flows and flow breccias. Copper-silver-gold mineralization consisting principally of tetrahedrite and chalcopyrite occur as disseminations, veins, fracture fillings and locally as massive pods and matrix material in breccia zones which are generally restricted to tabular zones subconcordant to host rock stratigraphy.

RELATED A.R.: 01683, 05346, 06456, 06985, 07166, 07343, 10727, 10869, 13264, 14942, 15374, 15710, 16298

Sam A.R. 17307 REPORT YEAR: 1988, 136 Pages, 3 Map(s)

OPERATOR(S): **Faraway Gold Mines**
AUTHOR(S): Donkersloot, P.
MINING DIV: Omineca
LOCATION: NTS 093L01W LAT. 54 11 00 LONG. 126 19 00
CLAIM(S): Sam
EXPL. TARGET: Silver,Zinc
WORK DONE: DIAD 5945.1 m 36 hole(s); NQ - 3 Map(s); 1:2500,1:1000
ROAD 3.5 km
SAMP 653 sample(s);AU,AG,CU,PB,ZN,AS,SB,FE

GEOLOGY: Massive and disseminated pyrite occur in Cretaceous Goosly altered andesite, tuffs and volcanic breccias. Although excellent silver and zinc values occur locally, extensive drilling has failed to delineate a deposit of economic significance.

MINFILE: 093L 260

Silver Queen A.R. 16715 REPORT YEAR: 1987

OPERATOR(S): **Houston Metals**
AUTHOR(S): Cummings, W.W. Beattie,M.J.V. Bernstein,L.R
MINING DIV: Omineca
LOCATION: NTS 093L02E LAT. 54 05 21 LONG. 126 43 25
CLAIM(S): Lots 6547-6550,Lot 7402
WORK DONE: META 31 sample(s)
MNGR 20 sample(s)
PETR 20 sample(s)

GEOLOGY: The Silver Queen Mine is in a sequence of Late Mesozoic-Early Tertiary volcanic flows and pyroclastics cut by a sill-like body of microdiorite. Sulphide mineralization occurs in a series of subparallel fractures and shear zones that are surrounded by argillic to advanced argillic alteration envelopes with abundant disseminated pyrite.

RELATED A.R.: 00294, 00421, 01133, 01184, 02272, 06456, 07343, 07612, 11659, 12009, 15742

Hagas A.R. 16872 REPORT YEAR: 1988, 64 Pages, 3 Map(s)

OPERATOR(S): **Progold Res.**
AUTHOR(S): Robins, J.
MINING DIV: Omineca
LOCATION: NTS 093L03E LAT. 54 09 55 LONG. 127 01 42
CLAIM(S): Hagas 1,Hagas 3-5,Hagas 76-80,Hagas 84 Fr.,Hag 2,Frost,Hem
WORK DONE: GEOL 1012.5 ha - 1 Map(s); 1:5000
IPOL 19.6 km - 2 Map(s); 1:5000
LINE 20.0 km
SAMP 33 sample(s);AG,AS,CU,PB,SB,ZN,AU
TREN 250.0 m 6 trench(es)

GEOLOGY: The claims are underlain by Lower Jurassic Hazelton Group pyroclastic volcanics and Eocene Buck Creek Formation volcanics which have been intruded by an Eocene alkaline gabbro.

MINFILE: 093L 005

Alec A.R. 17971 REPORT YEAR: 1988, 24 Pages

OPERATOR(S): **Atna Res.**
AUTHOR(S): Harivel, C.
MINING DIV: Omineca
LOCATION: NTS 093L05E LAT. 54 22 00 LONG. 127 44 00
CLAIM(S): Alec
EXPL. TARGET: Gold,Copper,Lead,Zinc
WORK DONE: PROS 500.0 ha
ROCK 32 sample(s);AU,ME

GEOLOGY: A dioritic sill(?) intrudes Telkwa volcanics of Hazelton Group. Quartz ankerite sulphide veins in intrusive and volcanic rocks contain significant gold values.

MINFILE: 093L

Urn A.R. 17975 REPORT YEAR: 1988, 30 Pages, 5 Map(s)

OPERATOR(S): **Equity Silver Mines**
AUTHOR(S): Hanson, D.
MINING DIV: Omineca
LOCATION: NTS 093L05E LAT. 54 24 00 LONG. 127 35 00
CLAIM(S): Urn 2-3
EXPL. TARGET: Copper,Silver
WORK DONE: SOIL 164 sample(s);CU,ZN,PB,AG,AU,AS,SB - 5 Map(s); 1:5000

GEOLOGY: Lower Jurassic andesitic tuffs of the Telkwa Formation are intruded by a small granitic stock. Copper-silver mineralization occurs as fracture fillings and disseminations within the volcanics.

MINFILE: 093L 060

Erin A.R. 17994 REPORT YEAR: 1988, 27 Pages, 7 Map(s)

OPERATOR(S): **Geostar Min.**
AUTHOR(S): Pardoe, A.J.
MINING DIV: Omineca
LOCATION: NTS 093L06E LAT. 54 23 00 LONG. 127 06 00
CLAIM(S): Erin 2,Erin 4
EXPL. TARGET: Copper,Silver
WORK DONE: GEOL 1000.0 ha - 1 Map(s); 1:10 000
ROCK 9 sample(s);ME
SILT 24 sample(s);ME
SOIL 206 sample(s);ME - 6 Map(s); 1:10 000

GEOLOGY: The Erin claims are underlain by maroon and green andesitic tuffs of the Jurassic Hazelton Group. Minor rhyolite and dacite volcanics are also present. Mineralization in narrow quartz veins consists of bornite, chalcopyrite and tetrahedrite.

MINFILE: 093L 240

Houston A.R. 18032 REPORT YEAR: 1988, 41 Pages, 7 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Campbell, T.
MINING DIV: Omineca
LOCATION: NTS 093L06E LAT. 54 23 00 LONG. 127 06 00
CLAIM(S): HT 2-4,Del 1-8,Ken 1-8,Nels 5-8,Tel 1-24,Ter 1-8
EXPL. TARGET: Copper
WORK DONE: GEOL 1350.0 ha - 4 Map(s); 1:5000

ROCK 28 sample(s);ME
SILT 11 sample(s);ME
SOIL 232 sample(s);ME - 3 Map(s); 1:250
GEOLOGY: The property is underlain by Early Jurassic volcanics of the Hazelton Group, that are intruded by Late Jurassic to Late Cretaceous Bulkley intrusives. Copper mineralization and pyrite are found in gossaned andesites and monzonite intrusives.
RELATED A.R.: 17994
MINFILE: 093L 240

Loljuh A.R. 17407 REPORT YEAR: 1988, 37 Pages

OPERATOR(S): **Geostar Min.**
AUTHOR(S): Helgason, R.
MINING DIV: Omineca
LOCATION: NTS 093L06E LAT. 54 24 00 LONG. 127 10 00
CLAIM(S): Kuku,Corn,Rutz
EXPL. TARGET: Copper,Lead,Zinc,Arsenic,Silver
WORK DONE: SOIL 780 sample(s);ME
GEOLOGY: The claims are underlain mainly by Jurassic aged Hazelton volcanics and sediments, which are intruded by quartz monzonite plutonic rocks. Three styles of mineralization occur: 1) copper associated with a feldspar porphyry dyke, 2) silver and copper in a minor shear zone and 3) lead and zinc in calcareous sediments.
MINFILE: 093L 166, 093L 227, 093L 228

Sun A.R. 17977 REPORT YEAR: 1988, 17 Pages, 1 Map(s)

OPERATOR(S): **Geostar Min.**
AUTHOR(S): Pardoe, A.J.
MINING DIV: Omineca
LOCATION: NTS 093L06E LAT. 54 28 00 LONG. 127 12 00
CLAIM(S): Sun
EXPL. TARGET: Copper,Silver,Gold
WORK DONE: PROS 500.0 ha - 1 Map(s); 1:10 000
ROCK 8 sample(s);ME
SILT 9 sample(s);ME
GEOLOGY: The claims are underlain by Howson subaerial facies, tuffs and flow rocks. This is a subdivision of the Jurassic Hazelton Group. Quartz veins with minor copper, silver and gold values crosscut the volcanics.
MINFILE: 093L

Lakeview A.R. 17852 REPORT YEAR: 1988, 49 Pages, 7 Map(s)

OPERATOR(S): **Golden Vein Ex.**
AUTHOR(S): Christopher, P.A.
MINING DIV: Omineca
LOCATION: NTS 093L07E LAT. 54 29 30 LONG. 126 36 00
CLAIM(S): Lakeview,Lakeview 2-4
EXPL. TARGET: Copper,Zinc,Silver,Gold
WORK DONE: EMGR 60.2 km; VLF - 2 Map(s); 1:5000
LINE 63.5 km
MAGG 60.2 km - 2 Map(s); 1:5000
SOIL 1022 sample(s);CU,ZN,AG,AS,BA,AU - 3 Map(s); 1:5000
GEOLOGY: A mineralized vein system containing chalcopyrite, pyrite, hematite and sphalerite accompanied by chloritization, epidotization and silicification occurs within a "bedded" volcanic sequence of Hazelton Group felsic pyroclastic rocks with intercalated limestone - specular hematite beds (Fig. 4). The length of the mineralized zone is greater than 400 metres along a strike of 030 degrees; dips are near vertical to 70 degrees to the northwest. Mineralized beds are up to 3 metres wide; the average width is about 1.8 metres.
RELATED A.R.: 02732, 12316
MINFILE: 093L 030

Canyon A.R. 17057 REPORT YEAR: 1988, 58 Pages, 3 Map(s)

OPERATOR(S): **Lacana Min.**
AUTHOR(S): Johnston, R.J.
MINING DIV: Omineca
LOCATION: NTS 093L07W LAT. 54 26 00 LONG. 126 50 00
CLAIM(S): Canyon
EXPL. TARGET: Gold,Copper,Silver
WORK DONE: DIAD 915.2 m 6 hole(s); NQ - 3 Map(s); 1:5000,1:1000
ROCK 346 sample(s);ME
GEOLOGY: Magnetite-garnet-quartz skarn beds within a rhyolite dome host spotty gold-copper values. The dome is part of the Jurassic Telkwa Formation, and is surrounded by andesite tuffs and coarse fragmental rocks. A diorite plug occurs 300 metres south of the skarn zones.
MINFILE: 093L

Emerson A.R. 16980 REPORT YEAR: 1987, 43 Pages, 6 Map(s)

OPERATOR(S): **Lornex Min. BP Min.**
AUTHOR(S): Cann, R.M.
MINING DIV: Omineca
LOCATION: NTS 093L07W LAT. 54 26 00 LONG. 126 54 00
CLAIM(S): Emerson 1
EXPL. TARGET: Gold,Silver,Lead,Zinc,Molybdenum/Molybdenite
WORK DONE: DIAD 327.1 m 5 hole(s); NQ - 1 Map(s); 1:5000
REST 4.4 km - 2 Map(s); 1:2000
ROCK 88 sample(s);AU,AG,CU,PB,ZN,MO
SOIL;AU,AG,PB - 3 Map(s); 1:5000
GEOLOGY: Strong pervasive phyllic alteration over a minimum 0.8 by 1.2 kilometre area has affected Upper Cretaceous(?) andesitic and dacitic volcanic rocks and associated porphyritic plugs and dykes. A weak quartz-molybdenite stockwork is hosted by intrusive rocks while scattered silver-rich galena-sphalerite-tetrahedrite veins occur in altered volcanic rocks.
MINFILE: 093L 032

Apex A.R. 17154 REPORT YEAR: 1987, 29 Pages, 1 Map(s)

OPERATOR(S): **Baril Dev.**
AUTHOR(S): Zastavnikovich, S.
MINING DIV: Omineca
LOCATION: NTS 093L08W LAT. 54 26 10 LONG. 126 26 58
CLAIM(S): Apex 75,Apex 77-78,Apex 85
WORK DONE: ROCK 32 sample(s);ME
SOIL 77 sample(s);ME - 1 Map(s); 1:6250
GEOLOGY: The property is underlain by Lower Jurassic Hazelton Group volcanic rocks varying from mafic-felsic lavas and pyroclastics. A small outcrop of gabbro is located approximately in the middle of the Apex 76 claim.
RELATED A.R.: 05288, 06427, 11504, 15408, 15489
MINFILE: 093L 245, 093L 246, 093L 247

Richfield A.R. 17374 REPORT YEAR: 1988, 352 Pages, 11 Map(s)

OPERATOR(S): **Esso Res. Can.**
AUTHOR(S): MacLeod, J.L.
MINING DIV: Omineca
LOCATION: NTS 093L09W LAT. 54 35 25 LONG. 126 16 00
CLAIM(S): Richfield 1-4,Rich 1-6
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: DIAD 1062.6 m 6 hole(s); NQ - 4 Map(s); 1:500,1:250
ROTD 1017.8 m 25 hole(s) - 7 Map(s); 1:5000,1:500
SAMP 300 sample(s);ME
GEOLOGY: The underlying rocks are Jurassic Hazelton Group, Telkwa and Nilkitkwa andesites and epiclastics. Precious metal mineralization is associated with strata-bound alteration zones dipping 45 degrees west. Published reserves are 170 000 tonnes of 3.8 grams of gold per tonne, and 176.7 grams of silver per tonne.
RELATED A.R.: 05438, 05553, 05707, 07817, 07957, 08525, 09294, 09363, 09875, 11454, 11704
MINFILE: 093L 018

Del Santo A.R. 17874 REPORT YEAR: 1988, 44 Pages, 1 Map(s)

OPERATOR(S): **Can. United Min.**
AUTHOR(S): Helgason, R.
MINING DIV: Omineca
LOCATION: NTS 093L10E LAT. 54 39 32 LONG. 126 42 16
CLAIM(S): Burn 7,Del 2
EXPL. TARGET: Silver,Zinc,Copper,Lead
WORK DONE: ROCK 15 sample(s);CU,PB,ZN,AG,AS
SOIL 216 sample(s);CU,PB,ZN,AG,AS - 1 Map(s); 1:2564
TREN 25.0 m 4 trench(es)
GEOLOGY: The property is underlain by mixed volcanics and sediments of the Lower Jurassic Hazelton Group. The main showing is a silver-zinc-copper skarn that runs north for 150 metres with a vertical dip.
RELATED A.R.: 17478
MINFILE: 093L 025

Del Santo-NW A.R. 17255 REPORT YEAR: 1988, 128 Pages, 8 Map(s)

OPERATOR(S): **Can. United Min.**
AUTHOR(S): Helgason, R.
MINING DIV: Omineca
LOCATION: NTS 093L10E LAT. 54 40 18 LONG. 126 36 34
CLAIM(S): Arctic,Burn 1
EXPL. TARGET: Silver,Lead,Zinc,Copper
WORK DONE: EMGR 11.5 km;VLF - 1 Map(s); 1:5000
GEOL 520.0 ha - 2 Map(s); 1:5000,1:100
LINE 32.5 km
ROCK 40 sample(s);CU,PB,ZN,AG,AS
SOIL 1333 sample(s);CU,PB,ZN,AG,AS - 5 Map(s); 1:5000
GEOLOGY: Argentiferous galena and sphalerite occur in quartz-carbonate veins that crosscut Middle Jurassic Hazelton Group volcanic and sedimentary rocks near dioritic intrusives.
RELATED A.R.: 02238, 02543
MINFILE: 093L 143

Delsanto A.R. 17478 REPORT YEAR: 1988, 52 Pages, 1 Map(s)

OPERATOR(S): **Can. United Min.**
AUTHOR(S): Holland, R.
MINING DIV: Omineca
LOCATION: NTS 093L10E LAT. 54 39 00 LONG. 126 42 00
CLAIM(S): Delsanto 1-2,Del 2-4,Burn 7
EXPL. TARGET: Silver,Zinc,Copper
WORK DONE: GEOL 25.0 ha
ROCK 37 sample(s);CU,PB,ZN,AG,AS
SOIL 140 sample(s);CU,PB,ZN,AG,AS - 1 Map(s); 1:5000
TREN 220.0 m 12 trench(es)
GEOLOGY: Hazelton Group tuffs and related calcareous sedimentary rocks are intruded by diorite, resulting in deposits of hornfels, skarn and related stratabound pyrite-pyrrhotite-chalcopyrite-sphalerite mineralization.
MINFILE: 093L 025

Frances A.R. 16991 REPORT YEAR: 1988, 13 Pages

OPERATOR(S): **M.P.D. Consul.**
AUTHOR(S): Stewart, C.
MINING DIV: Omineca
LOCATION: NTS 093L10E LAT. 54 44 00 LONG. 126 40 00
CLAIM(S): Frances 5 Fr.
EXPL. TARGET: Gold
WORK DONE: PROS 400.0 ha
GEOLOGY: Totally covered by overburden. Extrapolation from exposures 150 metres southeast indicates the claim to be underlain by Middle Jurassic Smithers Formation conglomerate and feldspathic sandstone.

Gio A.R. 17069 REPORT YEAR: 1987, 28 Pages

OPERATOR(S): **CK & G Management**
AUTHOR(S): Lewis, L. Cavey, G.
MINING DIV: Omineca
LOCATION: NTS 093L10E LAT. 54 35 42 LONG. 126 42 30
CLAIM(S): Gio 5
EXPL. TARGET: Silver,Arsenic,Lead,Zinc,Copper
WORK DONE: SOIL 50 sample(s);AG,AS,CU,PB,ZN
GEOLOGY: Tuffaceous sediments of the Lower Jurassic Hazelton Group are intruded by feldspar porphyries. Disseminated pyrite has been observed on the property.
RELATED A.R.: 13228, 14831, 16000

Java A.R. 17553 REPORT YEAR: 1988, 65 Pages, 10 Map(s)

OPERATOR(S): **B & H Leasco Crisan Res.**
AUTHOR(S): Gibson, N.
MINING DIV: Omineca
LOCATION: NTS 093L10E LAT. 54 36 03 LONG. 126 31 38
CLAIM(S): Java 300,Perrow 300,Peeler
EXPL. TARGET: Gold,Silver,Copper,Zinc,Lead,Arsenic,Antimony
WORK DONE: GEOL 1250.0 ha - 2 Map(s); 1:5000
LINE 28.7 km
MAGA 218.2 km - 2 Map(s); 1:10 000
ROCK 19 sample(s);CU,PB,ZN,AG,AS,SB,AU
SOIL 1150 sample(s);CU,PB,ZN,AG,AS,SB,AU - 6 Map(s); 1:2500
GEOLOGY: The claim area may be underlain by the Babine shelf facies and consists of subaqueous and subaerial pyroclastic volcanics inter-

calated with sediments.
MINFILE: 093L 021

Java A.R. 17668 REPORT YEAR: 1988, 20 Pages, 1 Map(s)

OPERATOR(S): **B & H Leasco**
AUTHOR(S): Gibson, N.
MINING DIV: Omineca
LOCATION: NTS 093L10E LAT. 54 36 34 LONG. 126 35 05
CLAIM(S): Java 100,Java 200,Perrow 100,Perrow 200
WORK DONE: MAGA 180.0 km - 1 Map(s); 1:10 000
GEOLOGY: The claim area may be underlain by subaqueous and subaerial pyroclastic volcanics intercalated with sediments.

Mineral Hill A.R. 17341 REPORT YEAR: 1988, 67 Pages, 2 Map(s)

OPERATOR(S): **Southern Cross Gold**
AUTHOR(S): Robertson, R.C.R.
MINING DIV: Omineca
LOCATION: NTS 093L10E LAT. 54 30 54 LONG. 126 44 13
CLAIM(S): Mineral Hill
EXPL. TARGET: Silver,Copper,Molybdenum/Molybdenite
WORK DONE: DIAD 521.8 m 8 hole(s);NQ - 2 Map(s); 1:1000
GEOLOGY: Lower Jurassic Telkwa Formation (Hazelton Group) volcanic pyroclastic and sedimentary rocks are intruded and hornfelsed by multiphase diorite-alaskite of Late Cretaceous-Early Tertiary age. Molybdenite with chalcopyrite, galena and tetrahedrite occurs in quartz-calcite-feldspar veins, stockworks and breccia zones.
RELATED A.R.: 00509, 00510, 00757, 02285, 02517, 06152, 07117, 09135, 12180
MINFILE: 093L 027, 093L 028

SO A.R. 17356 REPORT YEAR: 1988, 27 Pages, 6 Map(s)

OPERATOR(S): **Geostar Min.**
AUTHOR(S): Helgason, R.
MINING DIV: Omineca
LOCATION: NTS 093L10E LAT. 54 36 01 LONG. 126 43 51
CLAIM(S): S.O.
EXPL. TARGET: Silver
WORK DONE: GEOL 225.0 ha - 1 Map(s); 1:2500
SOIL 477 sample(s);CU,PB,ZN,AS,AG - 5 Map(s); 1:2500
GEOLOGY: The property is underlain by Lower Jurassic Hazelton Group andesite and tuffs. Crosscutting these rocks are feldspar-hornblende porphyry dykes and a rhyolite sill.
RELATED A.R.: 14833

Gio A.R. 17068 REPORT YEAR: 1987, 29 Pages

OPERATOR(S): **CK & G Management**
AUTHOR(S): Cavey, G. Lewis, L.
MINING DIV: Omineca
LOCATION: NTS 093L10W LAT. 54 34 48 LONG. 126 46 36
CLAIM(S): Gio 2
EXPL. TARGET: Silver,Arsenic,Lead,Zinc,Copper
WORK DONE: ROCK 2 sample(s);AG,AS,CU,PB,ZN
SOIL 48 sample(s);AG,AS,CU,PB,ZN
GEOLOGY: Tuffaceous sediments of the Lower Jurassic Hazelton Group are intruded by feldspar porphyries. No mineralization was seen.
RELATED A.R.: 13229, 14834, 16001

Silver Hill A.R. 17448 REPORT YEAR: 1988, 28 Pages

OPERATOR(S): **Atna Res.**
AUTHOR(S): Harivel, C.
MINING DIV: Omineca
LOCATION: NTS 093L11E LAT. 54 31 55 LONG. 127 11 12
CLAIM(S): Silver Hill
EXPL. TARGET: Silver,Gold,Copper
WORK DONE: SOIL 374 sample(s);AU
GEOLOGY: The property is underlain by red tuffaceous volcanics of the Lower Jurassic Hazelton Group. Three kilometres southwest, a large granodiorite stock of Upper Cretaceous age intrudes the volcanics. Lower Cretaceous sandstone rests unconformably on the volcanics. Major north-northeast trending faults cut across the claims. Early work reported the presence of electrum in an adit developed along a shear-hosted vein structure.
MINFILE: 093L 043

Snow A.R. 18014 REPORT YEAR: 1988, 86 Pages, 27 Map(s)

OPERATOR(S): **Lornex Min.**
AUTHOR(S): Cope, G.R.
MINING DIV: Omineca
LOCATION: NTS 093L12E LAT. 54 40 00 LONG. 127 41 00
CLAIM(S): Snow 1-3
EXPL. TARGET: Gold,Silver,Zinc,Copper,Lead
WORK DONE: EMGR 6.2 km;VLF - 2 Map(s); 1:2500
GEOL 200.0 ha - 1 Map(s); 1:2500
IPOL 10.3 km - 21 Map(s); 1:1250,1:2500
LINE 242.0 km
ROCK 65 sample(s);AU,ME - 1 Map(s); 1:100
SOIL 812 sample(s);AU,ME - 2 Map(s); 1:2500
GEOLOGY: The property is predominantly underlain by Lower Jurassic Telkwa Formation volcaniclastic rocks which are invaded by the Eocene Nanika intrusions. Mineralization consists of pyritic aureoles flanking feldspar porphyritic dykes. Sulphide rich quartz-carbonate veins within the pyritic aureoles yield assays of up to 4.53 grams per tonne gold, 85.4 grams per tonne silver, 0.72 per cent zinc, 0.39 per cent copper and 0.29 per cent lead.
MINFILE: 093L

Tsai A.R. 18138 REPORT YEAR: 1988, 18 Pages, 1 Map(s)

OPERATOR(S): **Lornex Min.**
AUTHOR(S): Cope, G.R.
MINING DIV: Omineca
LOCATION: NTS 093L12E LAT. 54 38 00 LONG. 127 38 00
CLAIM(S): Fly 1
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 500.0 ha - 1 Map(s); 1:5000
GEOLOGY: The property is entirely underlain by Lower Jurassic Telkwa Formation volcaniclastic rocks of the Hazelton Group. The volcaniclastic rocks consist of maroon to red intercalated mudstone, fine tuff and lapilli tuff and pale green, massive to thick bedded crystal lithic tuff. Alteration is weak and mineralization is restricted to silicified float material with moderately anomalous gold geochemistry.
RELATED A.R.: 18001

Tsai A.R. 18001 REPORT YEAR: 1988, 24 Pages

OPERATOR(S): **Atna Res.**
AUTHOR(S): Harivel, C.
MINING DIV: Omineca
LOCATION: NTS 093L12W LAT. 54 38 00 LONG. 127 38 00
CLAIM(S): Fly
EXPL. TARGET: Gold
WORK DONE: PROS 500.0 ha
GEOLOGY: Jurassic age Hazelton volcanics are intruded by Tertiary age biotite-hornblende granodiorite. Faults and shears in the area host precious metals mineralization. Only preliminary work has been done.

Sand A.R. 17957 REPORT YEAR: 1988, 12 Pages

OPERATOR(S): **Geostar Min.**
AUTHOR(S): Helgason, R.
MINING DIV: Omineca
LOCATION: NTS 093L13E LAT. 54 48 00 LONG. 127 44 00
CLAIM(S): Sand 1-4
WORK DONE: PROS 100.0 ha
GEOLOGY: The property is underlain by Cretaceous and Jurassic sediments which are separated by a fault along Coal Creek and intruded by a feldspar porphyry dyke. Silicification and pyritization occur peripheral to the dyke.

Tenn A.R. 16869 REPORT YEAR: 1987, 44 Pages, 2 Map(s)

OPERATOR(S): **Lacana Min.**
AUTHOR(S): Johnston, R.J.
MINING DIV: Omineca
LOCATION: NTS 093L13E LAT. 54 50 54 LONG. 127 41 00
CLAIM(S): Tenn,Tenn 2-3
EXPL. TARGET: Copper,Gold
WORK DONE: ROCK 19 sample(s);ME
SAMP 349 sample(s);ME - 1 Map(s); 1:5000
SILT 16 sample(s);ME
SOIL 249 sample(s);ME - 1 Map(s); 1:20 000
GEOLOGY: A local, intensely sericite-quartz-pyrite altered Eocene quartz monzonite plug intrudes Lower Cretaceous Skeena Group arkose and pebble conglomerates adjacent to a major 060 degree lineament. Anomalous copper, arsenic, antimony and gold values occur in the altered zones.
RELATED A.R.: 01999, 02278, 02372, 02697, 02698, 02937, 06105
MINFILE: 093L 079

Hidden Valley A.R. 18058 REPORT YEAR: 1988, 37 Pages

OPERATOR(S): **Kookaburra Gold**
AUTHOR(S): Nebocat, J.
MINING DIV: Omineca
LOCATION: NTS 093L13W LAT. 54 54 00 LONG. 127 52 30
CLAIM(S): Hidden Valley 1
EXPL. TARGET: Copper,Molybdenum/Molybdenite,Gold,Silver,Lead
WORK DONE: GEOL 400.0 ha
ROCK 50 sample(s);ME
SILT 14 sample(s);ME
SOIL 45 sample(s);ME
GEOLOGY: Jurassic intermediate volcanics are intruded by a pyritiferous monzonite and feldspar porphyry measuring 2.5 kilometres in length by 1 kilometre in width. A later stage quartz monzonite stock intruded the volcanics and porphyry, veining it with quartz, calcite and locally barite. Chalcopyrite, molybdenite and pyrite represents early stage mineralization, and galena, sphalerite, arsenopyrite and pyrite accompanied intense silicification during a later stage. Precious metals appear to be associated with the later stage.
MINFILE: 093L 076

Mamie A.R. 17082 REPORT YEAR: 1987, 66 Pages, 4 Map(s)

OPERATOR(S): **Cons. Silver Standard Mines**
AUTHOR(S): Reid, B.
MINING DIV: Omineca
LOCATION: NTS 093L14W LAT. 54 46 00 LONG. 127 20 00
CLAIM(S): Mamie,Evenrude,Florence,Kin,Kin 2-6
EXPL. TARGET: Gold,Silver,Zinc,Copper
WORK DONE: GEOL 1675.0 ha - 3 Map(s); 1:5000,1:100
META 1 sample(s)
ROAD 2.0 km
ROCK 11 sample(s);ME
SAMP 519 sample(s);AU,AG,CU,ZN,AS - 1 Map(s); 1:500
TREN 40.0 m
GEOLOGY: The property is underlain by Jurassic volcanic rocks, primarily a lithic tuff, which display regional propylitic alteration. Several narrow, steeply dipping mineralized shear zones containing gold, silver, zinc, copper and arsenic are located on the property.
RELATED A.R.: 00505, 15546
MINFILE: 093L 091

Mt. Evelyn A.R. 17081 REPORT YEAR: 1988, 44 Pages, 15 Map(s)

OPERATOR(S): **More Res.**
AUTHOR(S): Adamec, J.D. Kuran, D.
MINING DIV: Omineca
LOCATION: NTS 093L14W LAT. 54 51 00 LONG. 127 20 00
CLAIM(S): Last Hope,Spondulix
EXPL. TARGET: Silver,Gold,Lead,Zinc,Nickel,Copper
WORK DONE: EMGR 18.0 km; VLF - 4 Map(s); 1:1000
GEOL 75.0 ha - 1 Map(s); 1:2500
LINE 18.0 km
MAGG 18.0 km - 2 Map(s); 1:1000
SAMP 190 sample(s);AU,AG - 2 Map(s); 1:2500,1:1000
SOIL 368 sample(s);AU,AG,AS,CU,PB,ZN,NI - 6 Map(s); 1;1000
GEOLOGY: The underlying rocks are mainly metamorphosed massive dacite, rhyodacite flows,tuffs, and intrusives. Occasionally small quartz porphyry dykes occur on the property. Results of the exploration program delineated an anomalous zone containing up to 885 grams of silver per tonne across 30 centimetres.
MINFILE: 093L 103, 093L 104

Victory A.R. 17773 REPORT YEAR: 1988. 29 Pages, 5 Map(s)

OPERATOR(S): **Geostar Min.**
AUTHOR(S): Harrison, D.J.
MINING DIV: Omineca

LOCATION: NTS 093L14W LAT. 54 47 12 LONG. 127 21 35
CLAIM(S): Standard,Victory,Triumph,Torrent,Safety
EXPL. TARGET: Silver,Lead,Zinc,Gold
WORK DONE: EMGR 6.5 km - 1 Map(s); 1:1000
GEOL 50.0 ha - 4 Map(s); 1:1000,1:250,1:100
LINE 6.5 km
ROAD 0.2 km
ROCK 260 sample(s);AG,AS,AU,CU,PB,ZN
UNDV 55.0 m
GEOLOGY: Precious metals occur with sphalerite, galena, pyrite, chalcopyrite and arsenopyrite within a shear zone striking 060 degrees and dipping 80 degrees southeast to 80 degrees northwest. The shear zone has been traced on surface for 1200 metres; it is about 1 to 3 metres wide and traverses a rhyolitic lapilli tuff believed to be associated with the Telkwa Formation, Lower Jurassic Hazelton Group.
MINFILE: 093L 092, 093L 093

Ascot A.R. 16696 REPORT YEAR: 1987

OPERATOR(S): **Geostar Min.**
AUTHOR(S): Helgason, R.
MINING DIV: Omineca
LOCATION: NTS 093L15E LAT. 54 46 32 LONG. 126 42 04
CLAIM(S): Ascot 1-5,M.S. 2,Gap 1-4
WORK DONE: EMGR 137.0 km;VLF
GEOL 2400.0 ha
LINE 186.3 km
ROAD 2.0 km
ROCK 112 sample(s);ME
SOIL 5493 sample(s);CU,PB,ZN,AG,AS
TREN 563.5 m 15 trench(es)
GEOLOGY: Subaerial-submarine volcanic, volcaniclastic and sedimentary rocks of the Lower Jurassic Hazelton Group are intruded by Middle Jurassic diorite. Block faulting is the predominant structural control. Two types of mineralization have been found:
1) stratigraphically controlled lead and zinc and 2) remobilized lead and zinc in quartz-carbonate veins in shear zones.
RELATED A.R.: 01702, 02139, 02140, 02141, 06784, 06937, 10076, 14307, 14616

Ascot A.R. 16928 REPORT YEAR: 1988, 23 Pages, 28 Map(s)

OPERATOR(S): **Geostar Min.**
AUTHOR(S): Helgason, R.
MINING DIV: Omineca
LOCATION: NTS 093L15E LAT. 54 46 00 LONG. 126 44 00
CLAIM(S): Ascot 1-5,MS 2,Gap 1-4
EXPL. TARGET: Lead,Zinc,Gold,Silver
WORK DONE: GEOL 2400.0 ha - 18 Map(s); 1:5000,1:500,1:100
ROCK 112 sample(s);ME
SOIL 5473 sample(s);CU,PB,ZN,AG,AS - 10 Map(s); 1:5000
GEOLOGY: Subaerial to submarine volcanic, volcaniclastic and sedimentary rocks of the Jurassic Hazelton Group are intruded by Middle Jurassic diorite. Block faulting is the predominant structural control. Two types of mineralization have been found: 1) stratigraphically controlled lead and zinc, and 2) remobillized lead and zinc in quartz-carbonate veins in shear zones.
MINFILE: 093L 024

Doray A.R. 17045 REPORT YEAR: 1987, 9 Pages, 1 Map(s)

OPERATOR(S): **Keefe, R.R.**
AUTHOR(S): Keefe, R.R.
MINING DIV: Omineca
LOCATION: NTS 093L15E LAT. 54 47 48 LONG. 126 35 53
CLAIM(S): Doray
WORK DONE: PROS 500.0 ha - 1 Map(s); 1:10 000
GEOLOGY: The claim is underlain by alluvium with windows of mainly andesite and basalt believed to be of the Lower Jurassic Telkwa Formation.

Su A.R. 18177 REPORT YEAR: 1988, 50 Pages, 11 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Myers, D.E.
MINING DIV: Omineca
LOCATION: NTS 093L15E LAT. 54 51 30 LONG. 126 38 30
CLAIM(S): Su,Su 2-3
EXPL. TARGET: Zinc,Silver,Lead
WORK DONE: EMGR 7.2 km;VLF ,HLEM - 3 Map(s); 1:5000
GEOL 66.0 ha - 1 Map(s); 1:5000
LINE 8.3 km
MAGG 7.2 km - 2 Map(s); 1:5000
ROCK 14 sample(s);ME
SILT 8 sample(s);ME - 1 Map(s); 1:5000
SOIL 191 sample(s);ME - 4 Map(s); 1:5000
GEOLOGY: The property is underlain by Jurassic Hazelton Group volcanics and sediments. A maroon, amygdeloidal andesite unit occurs along the northwest side of the grid. It coincides with a magnetic high. A grey, andesite and rhyolite clast, calcite cemented breccia occurs to the southeast of the andesite unit. It appears to strike north-northeast to northeast and dips 25 to 60 degrees west with tops to the east.

Near the contact of these two units in a fine grained bed of the breccia, occurs a pyrite showing. It consists of a matrix with 20 to 30 per cent very fine grained, probably syngenetic, pyrite. Samples from this showing have graded up to 0.6 per cent zinc and 44 ppb silver.

About 350 metres to the northeast, an outcrop of coarse breccia contains minor sphalerite and galena associated with the calcite matrix and veinlets. Grab samples grade up to 2.9 per cent zinc and 0.9 per cent lead have been taken.
MINFILE: 093L

Big Onion A.R. 16784 REPORT YEAR: 1987, 6 Pages, 1 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): MacArthur, R.
MINING DIV: Omineca
LOCATION: NTS 093L15W LAT. 54 48 43 LONG. 126 53 34
CLAIM(S): JF,JC,JB
EXPL. TARGET: Copper,Molybdenum/Molybdenite
WORK DONE: ROCK 22 sample(s);AU,AG,CU,MO - 1 Map(s); 1:2400
GEOLOGY: A complex zone of Cretaceous quartz diorite porphyry and quartz-feldspar porphyry cuts Jurassic volcanics and sediments. An extensive altered and mineralized system is developed. Copper-

molybdenum mineralization is best developed along a sheared southeastern contact between the quartz diorite porphyry and andesite.
MINFILE: 093L 124

Cronin A.R. 16721 REPORT YEAR: 1987

OPERATOR(S): **Southern Gold Res.**
AUTHOR(S): Quinn, S.P.
MINING DIV: Omineca
LOCATION: NTS 093L15W LAT. 54 55 35 LONG. 126 48 35
CLAIM(S): Sunflower,Sunflower Fr.,Homestake,Bonanza,Eureka,Lucky Strike,Baine Chief,Bulkley Pioneer, Sunrise 7,Jim A Fr.,Del 1-12,View 1-8,Mill 1-2,Red
WORK DONE: EMGR 30.0 km;VLF
GEOL 506.0 ha
LINE 38.0 km
MAGG 30.0 km
ROCK 49 sample(s);ME
SOIL 1233 sample(s);ME
GEOLOGY: The Cronin Mine area is underlain by Jurassic and Cretaceous sediments intruded by a felsic body dated at 49 million years. Andesitic volcanics of the Brian Boru Formation are overthrust from the west. Polymetallic sulphide mineralization, principally lead, zinc and silver, lies at the margins of this intrusions and is probably genetically related to it.
RELATED A.R.: 05526, 05674, 16603

Cronin A.R. 17712 REPORT YEAR: 1988, 84 Pages, 2 Map(s)

OPERATOR(S): **Southern Gold Res.**
AUTHOR(S): Pezzot, T.
MINING DIV: Omineca
LOCATION: NTS 093L15W LAT. 54 55 25 LONG. 126 48 51
CLAIM(S): Homestake (L.1859A),Eureka (L.1861A),Jim A Fr.,Bonanza (L.1860A),Lucky Strike (L.1862A), Sunflower Fr. (L.7417),Sunflower (L.7418),Bulkley Pioneer (L.1864),Babine Chief (L.1863B), View 1-2,View 5-6
EXPL. TARGET: Zinc,Lead,Silver,Gold,Cadmium
WORK DONE: EMGR 14.7 km;HLEM - 2 Map(s); 1:5000
GEOLOGY: Jurassic Ashman Formation and Middle-Lower Cretaceous Red Rose Formation rocks are intruded by a felsic body dated at 49 Ma. Most of the productive mineralization occurs at the shale-rhyolite contact and comprised "veins" containing galena, sphalerite and pyrite.
RELATED A.R.: 05526
MINFILE: 093L 127

Gold Dust A.R. 16874 REPORT YEAR: 1988, 11 Pages, 1 Map(s)

OPERATOR(S): **Carter, N.C.**
AUTHOR(S): Carter, N.C.
MINING DIV: Omineca
LOCATION: NTS 093L16E LAT. 54 45 40 LONG. 126 11 39
CLAIM(S): Gold Dust I-II
EXPL. TARGET: Copper,Molybdenum/Molybdenite,Gold,Silver
WORK DONE: GEOL 800.0 ha - 1 Map(s); 1:10 000
GEOLOGY: The claims cover a contact between Late Triassic schistose volcanic rocks, lesser sediments and granitic rocks. Porphyry copper-molybdenum mineralization is widespread in granitic rocks. Precious metal values were noted in contact zones.
MINFILE: 093L 144, 093L 225

Red A.R. 17190 REPORT YEAR: 1988, 53 Pages, 7 Map(s)

OPERATOR(S): **Equity Silver Mines**
AUTHOR(S): Pease, R.B.
MINING DIV: Omineca
LOCATION: NTS 093L16E LAT. 54 59 08 LONG. 126 06 48
CLAIM(S): Red 1-2
EXPL. TARGET: Copper,Zinc
WORK DONE: DIAD 857.3 m 7 hole(s);NQ - 7 Map(s); 1:2500,1:500
SAMP 324 sample(s);CU,AG,AU,SB,AS,FE,ZN,PB
GEOLOGY:

The claims are underlain by sandstone, greywacke and mudstone of the Lower Jurassic Smithers Formation. Semi-massive pyrite-pyrrhotite occupy a steeply dipping tabular zone up to 50 metres thick.
RELATED A.R.: 14093, 14773

HAZELTON 093M

Bell Mine A.R. 16754 REPORT YEAR: 1987

OPERATOR(S): **Noranda Min.**
AUTHOR(S): Anderson, B.
MINING DIV: Omineca
LOCATION: NTS 093M01E, 093L16E LAT. 55 00 06 LONG. 126 13 37
CLAIM(S): M 134,GC 1-5,GC 13-26,GC 28,Arch 1
WORK DONE: DIAD 1589.0 m 16 hole(s);NQ
GEOL 850.0 ha
SAMP 204 sample(s);CU,AU
GEOLOGY: Lower Jurassic Hazelton Group volcanic rocks are intruded by Eocene stocks, dykes and sills of biotite-feldspar porphyry and overlain by volcanic biotite-feldspar porphyry equivalents. The intrusive rocks have been localized by a system of north-northwest trending faults and by a subsidiary set of northeast trending faults.
RELATED A.R.: 15711

Bell Mine A.R. 16992 REPORT YEAR: 1988, 30 Pages, 1 Map(s)

OPERATOR(S): **Maclaren Forest Products**
AUTHOR(S): Anderson, B.
MINING DIV: Omineca
LOCATION: NTS 093M01E, 093L16E LAT. 55 00 00 LONG. 126 14 00
CLAIM(S): ML 135
EXPL. TARGET: Copper,Gold
WORK DONE: DIAD 76.2 m 1 hole(s); NQ - 1 Map(s); 1:6000
SAMP 24 sample(s);CU
TREN 900.0 m 1 trench(es);RECL
GEOLOGY: The Bell orebody is horseshoe shaped in plan, dips steeply to the northwest, is 150 to 300 metres wide by 1000 metres long and dated at 48 milllion years old. The orebody follows and overlaps the west and north edges of an Eocene plug of biotite-horneblende-plagioclase porphyry. The ore body is enclosed in a halo of hydrothermal alteration and is in a zone of hydrothermal biotitization. Chalcopyrite, the main copper mineral, is finely disseminated or occurs as fracture coatings and stringers.
MINFILE: 093M 001

Copper A.R. 16785 REPORT YEAR: 1987, 16 Pages, 1 Map(s)

OPERATOR(S): **Hidber, J. Contracting Evergreen Ex.**
AUTHOR(S): Woolverton, R.
MINING DIV: Omineca
LOCATION: NTS 093M01E LAT. 55 04 56 LONG. 126 04 21
CLAIM(S): Copper 1-4
WORK DONE: SOIL 40 sample(s);ZN - 1 Map(s); 1:2500
GEOLOGY: The claims are underlain by Lower Jurassic Hazelton Group volcanics and sediments.

Fireweed A.R. 17774 REPORT YEAR: 1988, 63 Pages, 19 Map(s)

OPERATOR(S): **Can. United Min.**
AUTHOR(S): Holland, R.
MINING DIV: Omineca
LOCATION: NTS 093M01W LAT. 55 01 00 LONG. 126 25 00
CLAIM(S): Ger 1-4,GRR 1-2
EXPL. TARGET: Silver,Lead,Zinc,Copper,Gold
WORK DONE: GEOL 1190.0 ha - 1 Map(s); 1:10 000
IPOL 51.7 km - 2 Map(s); 1:5000
MAGG 111.3 km - 3 Map(s); 1:5000
PITS 13 pit(s)
ROCK 89 sample(s);CU,PB,ZN,AG,AS
SOIL 3451 sample(s);CU,PB,ZN,AG,AS - 10 Map(s); 1:5000
TREN 160.0 m 7 trench(es) - 3 Map(s); 1:100
GEOLOGY: Skeena Group deltaic sediments are in fault contact wih Hazelton Group volcanics, all of which have been intruded by Tertiary aged Babine Intrusions. Argillic alteration of sandstones is associated with disseminated sulphides and sulphide supported breccia zones. Disseiminated sulphides appear to be stratigraphically controlled in east to northeast, vertically dipping beds.
MINFILE: 093M

Saddle Hill A.R. 17864 REPORT YEAR: 1988, 30 Pages, 1 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Myers, D.E.
MINING DIV: Omineca
LOCATION: NTS 093M01W LAT. 55 13 00 LONG. 126 22 30
CLAIM(S): Wolf 1-3
EXPL. TARGET: Copper
WORK DONE: GEOL 275.0 ha - 1 Map(s); 1:5000
ROCK 19 sample(s);ME
SILT 4 sample(s);ME
SOIL 74 sample(s);ME
GEOLOGY: Diorites and granodiorites cut clastic sediments which they hornfels. Intermediate feldspar porphyry dykes cut both of the above units. Minor chalcopyrite mineralization occurs in diorite and anomalous soils cover a larger area on the Wolf 1 claim. Quartz-ankerite veinlets and alteration occur near a fault paralleling the Morrison Lake on the property.
RELATED A.R.: 00761, 01240, 01255, 01808, 01854, 02047, 05941, 08176, 08779
MINFILE: 093M 008

Blunt Mountain A.R. 17135 REPORT YEAR: 1988, 27 Pages, 4 Map(s)

OPERATOR(S): **Atna Res.**
AUTHOR(S): Myers, D.E.
MINING DIV: Omineca
LOCATION: NTS 093M03E LAT. 55 14 00 LONG. 127 14 00
CLAIM(S): Lokis 2
EXPL. TARGET: Gold,Silver,Iron,Lead,Zinc,Antimony
WORK DONE: DIAD 185.6 m 3 hole(s); NQ - 4 Map(s); 1:2500,1:250
SAMP 20 sample(s);AU,AG
GEOLOGY: The property is underlain by clastic sedimentary rocks of the Jurassic Bowser Lake Group and an intrusive monzonitic to dioritic pluton of the Late Cretaceous Bulkley suite. These rocks are cut by granitic feldspar porphyry dykes of unknown age. Several types of mineralization and alteration have been discovered on the property. The most important type is silver-gold-iron-lead-arsenic-antimony-zinc-mineralized quartz veins.
MINFILE: 093M 026

Rocher Debouce A.R. 16714 REPORT YEAR: 1987

OPERATOR(S): **Southern Gold Res.**
AUTHOR(S): Quin, S.
MINING DIV: Omineca
LOCATION: NTS 093M04E LAT. 55 09 52 LONG. 127 38 20
CLAIM(S): Lots 2400-2404
WORK DONE: EMGR 10.1 km;VLF
GEOL 126.0 ha
LINE 117.3 km
MAGG 10.1 km
RECL
ROCK 200 sample(s);ME
SOIL 332 sample(s);ME
GEOLOGY: The property lies on the western margin of the Rocher Deboule pluton with the southern and western areas underlain by the Lower Cretaceous Bowser Lake Group. Mineralization consists of quartz-sulphide veins in shear zones in close proximity to the margin of the Rocher Deboule stock.
RELATED A.R.: 07779, 08336, 10368, 11019, 11513, 12133

American Boy A.R. 17915 REPORT YEAR: 1988, 15 Pages

OPERATOR(S): **Can-Ex Res.**
AUTHOR(S): Homenuke, A.M.
MINING DIV: Omineca
LOCATION: NTS 093M05E LAT. 55 18 00 LONG. 127 34 00
CLAIM(S): AB 1
EXPL. TARGET: Silver,Gold,Lead,Zinc,Copper
WORK DONE: EMGR 5.0 km;VLF
MAGG 5.0 km
GEOLOGY: The property is underlain by Bowser Group sediments. Mineralization consists of quartz veins with tetrahedrite, galena, sphalerite, arsenopyrite (gold) and chalcopyrite.
RELATED A.R.: 07955, 14624, 16461
MINFILE: 093M 047

American Boy A.R. 17658 REPORT YEAR: 1988, 14 Pages

OPERATOR(S): **Can-Ex Res.**
AUTHOR(S): Homenuke, A.M.

MINING DIV: Omineca
LOCATION: NTS 093M05E LAT. 55 18 54 LONG. 127 34 41
CLAIM(S): AB 1,Cindy Lou
EXPL. TARGET: Silver,Gold,Copper,Lead,Zinc
WORK DONE: DIAD 44.2 m 3 hole(s);EX
GEOLOGY: Quartz veins with galena, chalcopyrite, sphalerite, tetrahedrite and arsenopyrite (gold) occur in Lower Cretaceous Bowser Lake Group sandstone and argillite.
RELATED A.R.: 06789, 08847, 10457, 11165, 12665, 15124, 15393, 16324
MINFILE: 093M 047

Bonnie A.R. 17363 REPORT YEAR: 1988, 12 Pages

OPERATOR(S): **Tri-Con Min.**
AUTHOR(S): Homenuke, A.M.
MINING DIV: Omineca
LOCATION: NTS 093M05E LAT. 55 19 00 LONG. 127 38 00
CLAIM(S): Marwill 2
EXPL. TARGET: Silver,Gold,Copper,Lead,Zinc
WORK DONE: DIAD 67.1 m 2 hole(s)
GEOLOGY: Silver, gold, copper, lead and zinc sulphides occur in quartz veins cutting Bowser Group sandstones in the area. The drilling intersected pyritic quartz veins, but no other mineralization.
RELATED A.R.: 08906, 10189, 13181, 13440, 14135, 14840, 15891

Canadian Queen A.R. 17657 REPORT YEAR: 1988, 12 Pages

OPERATOR(S): **Tri-Con Min.**
AUTHOR(S): Homenuke, A.M.
MINING DIV: Omineca
LOCATION: NTS 093M05E LAT. 55 18 57 LONG. 127 36 45
CLAIM(S): Canadian Queen
EXPL. TARGET: Silver,Gold,Lead,Zinc,Copper
WORK DONE: GEOL 1.0 ha
GEOLOGY: Quartz veins with tetrahedrite, galena, sphalerite and chalcopyrite occur in Lower Cretaceous Bowser Lake Group sandstone and argillite.
RELATED A.R.: 09121, 10488, 12038, 12240, 13769, 15121

Pinenut A.R. 17290 REPORT YEAR: 1988, 54 Pages, 2 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Myers, D.E.
MINING DIV: Omineca
LOCATION: NTS 093M05E, 093M06W LAT. 55 25 24 LONG. 127 31 13
CLAIM(S): Raven 1-6,Silverton 1-2
EXPL. TARGET: Gold,Silver,Arsenic,Zinc
WORK DONE: ROCK 17 sample(s);ME - 1 Map(s); 1:5000
SILT 15 sample(s);ME
SOIL 85 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: Quartz-arsenopyrite veins cut a Bulkley granitic stock and nearby, hornfelsed Lower Cretaceous Bowser Lake Group clastic sediments occur.
RELATED A.R.: 16601
MINFILE: 093M 038

Max A.R. 18064 REPORT YEAR: 1988, 41 Pages, 1 Map(s)

OPERATOR(S): **Accura Res.**
AUTHOR(S): Richards, T.A.
MINING DIV: Omineca
LOCATION: NTS 093M06E LAT. 55 16 00 LONG. 127 10 00
CLAIM(S): Max
EXPL. TARGET: Silver,Gold,Lead,Zinc,Arsenic,Antimony,Cadmium
WORK DONE: DIAD 350.0 m 5 hole(s);BQ - 1 Map(s); 1:400
SAMP 43 sample(s);ME
GEOLOGY: Veins, disseminations and breccia fillings of galena, sphalerite, boulangerite, pyrite, arsenopyrite and manganese-ankerite are associated with a hornfels halo in Upper Jurassic Bowser Lake Group rocks, at an Upper Cretaceous diorite stock.
RELATED A.R.: 02495, 06431, 06998, 14072
MINFILE: 093M

French Peak Silver A.R. 16824 REPORT YEAR: 1987, 29 Pages, 2 Map(s)

OPERATOR(S): **Silverado Mines**
AUTHOR(S): Homenuke, A.M. Seywerd, M.
MINING DIV: Omineca
LOCATION: NTS 093M07W LAT. 55 19 48 LONG. 126 48 30
CLAIM(S): Silverado,Silver Iron
EXPL. TARGET: Silver,Gold,Copper,Lead,Zinc
WORK DONE: GEOL 18.0 ha
IPOL 3.6 km - 2 Map(s); 1:2500
GEOLOGY: High grade silver-gold-copper-lead-zinc mineralization occurs in crosscutting and conformable veins and shear zones in subaerial-subaqueous tuffs, flows and volcaniclastics of andesite-rhyolite compostion of the Lower Jurassic Hazelton Group and Lower Cretaceous Skeena Group(?).
RELATED A.R.: 06014, 07239, 08165, 09488, 13266, 13834, 15243
MINFILE: 093M 015

Discovery A.R. 17525 REPORT YEAR: 1988, 22 Pages

OPERATOR(S): **Hidber, J.**
AUTHOR(S): Hidber, J.
MINING DIV: Omineca
LOCATION: NTS 093M12E LAT. 55 41 00 LONG. 127 37 00
CLAIM(S): Discovery,Discovery 2-3
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: PROS 500.0 ha
ROCK 11 sample(s);AU,AG
SILT 10 sample(s);AU
GEOLOGY: The claims are situated on the eastern edge of the Bowser Basin Group of sedimentary rocks, which are cut by Bulkley Intrusives.

Golden Girl A.R. 17291 REPORT YEAR: 1988, 65 Pages, 2 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Myers, D.E.
MINING DIV: Omineca
LOCATION: NTS 093M12E LAT. 55 40 20 LONG. 127 35 18
CLAIM(S): Golden Girl 1-4,Janze 1-2
EXPL. TARGET: Silver,Gold,Lead,Zinc,Arsenic
WORK DONE: GEOL 180.0 ha - 1 Map(s); 1:5000
ROCK 122 sample(s);ME
SILT 27 sample(s);ME
SOIL 243 sample(s);ME - 1 Map(s); 1:5000

HAZELTON 093M

GEOLOGY:	Clastic Lower Cretaceous Bowser Lake Group sediments are intruded and hornfelsed by a Bulkley granitic stock. Quartz-galena-pyrite-sphalerite-arsenopyrite-tetrahedrite veins cut both units in the area of the stock.
MINFILE:	093M 081

Molly A.R. 17542 **REPORT YEAR: 1987, 20 Pages, 2 Map(s)**

OPERATOR(S):	**Pantan Res.**	
AUTHOR(S):	Hooper, D.G.	
MINING DIV:	Omineca	
LOCATION:	NTS 093M14W	LAT. 55 48 00 LONG. 127 27 00
CLAIM(S):	Molly 1-4	
EXPL. TARGET:	Gold,Silver,Copper,Lead,Zinc	
WORK DONE:	PROS 300.0 ha - 2 Map(s); 1:5000	
	SAMP 29 sample(s);AU,AG,CU,PB,ZN	
GEOLOGY:	A thick sequence of Jurassic sedimentary rocks has been intruded by Late Cretaceous granodiorite plugs, dykes and sills. The intrusives are believed to be responsible for late stage epithermal quartz +/- carbonate veins and stockworks. The veins carry variable amounts of pyrite, galena, sphalerite, and chalcopyrite, with minor molybdenum, gold and silver values.	

Kot A.R. 17794 **REPORT YEAR: 1988, 22 Pages, 13 Map(s)**

OPERATOR(S):	**Placer Dome**	
AUTHOR(S):	Boase, R.	
MINING DIV:	Omineca	
LOCATION:	NTS 093M15W	LAT. 55 48 00 LONG. 126 50 00
CLAIM(S):	Kot 1-4	
EXPL. TARGET:	Lead,Zinc,Copper,Silver,Gold	
WORK DONE:	EMGR 8.4 km;VLF - 3 Map(s); 1:2500	
	LINE 16.8 km	
	MAGG 8.4 km - 3 Map(s); 1:2500	
	ROCK 6 sample(s);CU,ZN,PB,AG,BA,AU - 1 Map(s); 1:12 500	
	SOIL 42 sample(s);CU,ZN,PB,AG,BA,AU - 6 Map(s); 1:2500	
GEOLOGY:	The property contains anomalous lead, zinc, copper and silver values within volcaniclastic rocks of the Lower Jurassic Hazelton Group.	
RELATED A.R.:	14943	

MANSON RIVER 093N

Mt. Milligan A.R. 16966 **REPORT YEAR: 1988, 153 Pages, 1 Map(s)**

OPERATOR(S):	**Lincoln Res.**	
AUTHOR(S):	Rebagliati, C.M.	
MINING DIV:	Omineca	
LOCATION:	NTS 093N01E	LAT. 55 07 30 LONG. 124 02 00
CLAIM(S):	Heidi 1-2,Phil 9	
EXPL. TARGET:	Copper,Gold	
WORK DONE:	DIAD 2305.0 m 23 hole(s); NQ - 1 Map(s); 1:2500	
	SAMP 800 sample(s);AU,AG,CU	
GEOLOGY:	Upper Triassic alkaline augite porphyritic flows and fragmentals are intruded by diorite and monzonite dykes. A large propylitic alteration zone hosts porphyry type copper-gold mineralization and tabular sulphide-rich auriferous replacement mineralization.	
RELATED A.R.:	11951, 12912, 14377	
MINFILE:	093N 194	

Mt. Milligan A.R. 17936 **REPORT YEAR: 1988, 20 Pages**

OPERATOR(S):	**Lincoln Res.**	
AUTHOR(S):	Rebagliati, C.M.	
MINING DIV:	Omineca	
LOCATION:	NTS 093N01E	LAT. 55 08 00 LONG. 124 04 00
CLAIM(S):	Phil 9	
EXPL. TARGET:	Copper,Gold	
WORK DONE:	DIAD 152.8 m 1 hole(s);NQ	
	SAMP 13 sample(s);AU	
GEOLOGY:	Propylitic altered Takla Group augite porphyry fragmental units host semi-massive pyrite, chalcopyrite carbonate silica replacement bodies along shears within 100-150 metres wide structure.	
RELATED A.R.:	11951, 12912, 14377, 16966	
MINFILE:	093N 194	

Rain A.R. 17860 **REPORT YEAR: 1988, 110 Pages, 1 Map(s)**

OPERATOR(S):	**BP Min.**	
AUTHOR(S):	Hoffman, S.J. Pegg, R.	
MINING DIV:	Omineca	
LOCATION:	NTS 093N01E	LAT. 55 02 00 LONG. 124 03 00
CLAIM(S):	Phil 17	
EXPL. TARGET:	Copper	
WORK DONE:	GEOL 500.0 ha - 1 Map(s); 1:10 000	
	ROCK 7 sample(s);ME	
	SILT 6 sample(s);ME	
	SOIL 108 sample(s);ME	
GEOLOGY:	Most of the property is covered by Upper Triassic Takla Group andesitic flows, tuffs and breccias. Takla sediments consisting of argillite, sandstone and siltstone are found on the northern and western portion of the claim group. Feldspar porphyry and diorite dykes and sills cut the section. Local disseminated and fracture filling pyrite and pyrrhotite were observed in the volcanics and dykes. Trace amounts of chalcophyrite were observed in the volcanic flows.	
MINFILE:	093N	

Mitzi A.R. 17793 **REPORT YEAR: 1988, 19 Pages, 8 Map(s)**

OPERATOR(S):	**Placer Dome**	
AUTHOR(S):	Price, S.	
MINING DIV:	Omineca	
LOCATION:	NTS 093N01W	LAT. 55 07 02 LONG. 124 25 36
CLAIM(S):	Mitzi 1-2	
WORK DONE:	GEOL 400.0 ha - 1 Map(s); 1:10 000	
	ROCK 17 sample(s);CU,PB,ZN,AS,AG,AU	
	SOIL 45 sample(s);CU,PB,ZN,AS,AG,AU - 7 Map(s); 1:10 000	
GEOLOGY:	The property geology consists of Upper Triassic to Lower Jurassic Takla Group volcanics, rhyolitic to andesitic to basaltic in composition. One-half to 2 per cent pyrite is common in the rhyolite and andesite as anhedral blebs.	
MINFILE:	093N 096	

Skook A.R. 18073 REPORT YEAR: 1988, 52 Pages, 7 Map(s)

OPERATOR(S): **Nation River Res.**
AUTHOR(S): Campbell, C.J.
MINING DIV: Omineca
LOCATION: NTS 093N01W, 093N02E LAT. 55 12 00 LONG. 124 30 00
CLAIM(S): Skook 3-4,Skook 6
EXPL. TARGET: Copper,Gold,Silver
WORK DONE: GEOL 1625.0 ha - 1 Map(s); 1:5000
LINE 7.5 km
PETR 9 sample(s)
ROCK 99 sample(s);ME - 3 Map(s); 1:2500
SOIL 173 sample(s);ME - 3 Map(s); 1:2500
GEOLOGY: The property covers the southern margin of the Hogem batholith which has intruded Takla volcanics and sediments north of Chuchi Lake. Gold, copper and silver values are found in silicified zones associated with alkalic hypabyssal rocks near the centre of the property. Chip samples across 1 metre returned up to 4.3 ppm gold and 53 ppm silver.
MINFILE: 093N 140

Camp A.R. 17973 REPORT YEAR: 1988, 22 Pages, 2 Map(s)

OPERATOR(S): **Campbell, C.J.**
AUTHOR(S): Campbell, C.J.
MINING DIV: Omineca
LOCATION: NTS 093N02E LAT. 55 05 00 LONG. 124 35 00
CLAIM(S): Camp 1
EXPL. TARGET: Copper,Gold
WORK DONE: ROCK 3 sample(s);AU,ME
SOIL 60 sample(s);AU,ME - 2 Map(s); 1:5000
GEOLOGY: The Camp claim is underlain by Upper Triassic and later Takla Group volcanics and sediments which appear to have been intruded by a gabbroic stock. Copper mineralization of up to 0.62 per cent copper over 3.05 metres has been found in previous drilling on the Camp 1 claim. Anomalous gold values of up to 285 ppb have also been reported.
RELATED A.R.: 03127, 03462
MINFILE: 093N 081

Kael A.R. 18123 REPORT YEAR: 1988, 40 Pages, 5 Map(s)

OPERATOR(S): **Kookaburra Gold**
AUTHOR(S): Nebocat, J. Rotherham, D.C.
MINING DIV: Omineca
LOCATION: NTS 093N02E, 093N07W LAT. 55 15 00 LONG. 124 45 00
CLAIM(S): Kael 2,Col 1-2
EXPL. TARGET: Copper,Gold
WORK DONE: ROAD 6.5 km
SOIL 878 sample(s);AU,CU,AG,PB,ZN,AS,FE - 5 Map(s); 1:2500
GEOLOGY: An alkaline phase of the Hogem Batholith consisting of predominantly monzonite bornite and chalcopyrite were noted in outcrop and in drillcore, but pyrite is not abundant. Gold mineralization has been identified within the copper mineralized zones and along a prominent northwest trending series of linears occuppied locally by quartz veins. Potash alteration has metasomatized much of the monzonite to syenite, and mafic minerals were altered to biotite. In outcrop, the rock appears reasonably unaltered. Aplitic to pegmatitic phases of dykes were noted in drillcore. A drill-indicated ore reserve of 1,814,000 tonnes grading 0.6 per cent copper exists in one zone.
RELATED A.R.: 15423
MINFILE: 093N 101

Phil A.R. 17859 REPORT YEAR: 1988, 72 Pages, 1 Map(s)

OPERATOR(S): **BP Min.**
AUTHOR(S): Pegg, R. Hoffman, S.J.
MINING DIV: Omineca
LOCATION: NTS 093N02W LAT. 55 09 00 LONG. 124 52 30
CLAIM(S): Phil 20
WORK DONE: GEOL 500.0 ha - 1 Map(s); 1:10 000
ROCK 7 sample(s);ME
SOIL 80 sample(s);ME
GEOLOGY: The majority of the property is underlain by Upper Triassic Takla Group argillites, volcanic sandstone and siltstone. The sediments overlie Takla volcanics which are found along the west side of the property. The volcanics consist of dacitic tuffs and andesitic flows. Porphyry and basaltic dykes cut the section. Local, minor pyrrhotite and pyrite disseminations and fracture fillings were observed in the sediments and volcanics.
RELATED A.R.: 13509
MINFILE: 093N 193

Heath A.R. 17988 REPORT YEAR: 1988, 29 Pages, 1 Map(s)

OPERATOR(S): **Campbell, C.J.**
AUTHOR(S): Campbell, C.J.
MINING DIV: Omineca
LOCATION: NTS 093N06E LAT. 55 17 00 LONG. 125 09 00
CLAIM(S): Heath 1
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: ROCK 2 sample(s);ME
SOIL 75 sample(s);ME - 1 Map(s); 1:4800
GEOLOGY: The Heath claim is underlain by diorite and gabbro of the Hogem Batholith, which have been intruded by syenite and quartz-feldspar porphyry. Massive sulphide lenses, containing up to 6.4 per cent copper, 1.2 grams per tonne gold and 27 grams per tonne silver across 1.5 metres, strike north-south and dip steeply to the east.
MINFILE: 093N 071, 093N 072

Indata A.R. 17185 REPORT YEAR: 1988, 45 Pages, 6 Map(s)

OPERATOR(S): **Eastfield Res.**
AUTHOR(S): Morton, J.W. Garratt, G.L.
MINING DIV: Omineca
LOCATION: NTS 093N06W LAT. 55 23 30 LONG. 125 20 19
CLAIM(S): Schnapps 1-2,Schnapps 4
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: SOIL 849 sample(s);ME - 6 Map(s); 1:2000
GEOLOGY: A quartz-massive sulphide zone occurs in mafic metavolcanic rocks thought to be part of the Permian-Pennsylvanian Cache Creek Group. Mineralization which includes gold and silver, may be related to a nearby mafic-ultramafic zoned intrusive complex.
RELATED A.R.: 13180, 14074, 16129

MINFILE: 093N 192

Gold A.R. 16865 REPORT YEAR: 1987, 37 Pages, 1 Map(s)

OPERATOR(S): **Hawk Mountain Res.**
AUTHOR(S): Shaede, E.A.
MINING DIV: Omineca
LOCATION: NTS 093N07W LAT. 55 17 35 LONG. 124 46 55
CLAIM(S): Gold 2-4
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: PETR 10 sample(s)
ROCK 15 sample(s);ME - 1 Map(s); 1:3000
GEOLOGY: Sheared Upper Triassic Takla Group andesites exhibit quartz-sericite-carbonate-chlorite-epidote alteration. Narrow quartz-carbonate veins in the shear zone contain chalcopyrite-magnetite-pyrite mineralization with disseminated pyrite-chalcopyrite in the wallrock. The shear zone is up to 15 metres wide. A grab sample of a mineralized vein assayed 1225 grams per tonne silver, 23.3 grams per tonne gold, 4 per cent copper and 0.4 per cent bismuth.
RELATED A.R.: 14579
MINFILE: 093N 032

Ursa A.R. 17872 REPORT YEAR: 1988, 45 Pages, 20 Map(s)

OPERATOR(S): **Chevron Min.**
AUTHOR(S): Halleran, A.A.D.
MINING DIV: Omineca
LOCATION: NTS 093N09E, 093N05W, 093O12W LAT. 55 31 20 LONG. 123 56 35
CLAIM(S): Will 1-7,Laura 1-3,Ursa 1
EXPL. TARGET: Rare Earths
WORK DONE: GEOL 175.0 ha - 7 Map(s); 1:50 000,1:1000,1:250
HMIN 24 sample(s);ME
ROCK 26 sample(s);ME
SCGR 2.7 km - 1 Map(s); 1:1000
SOIL 371 sample(s);ME - 12 Map(s); 1:1000
GEOLOGY: Rare earth mineralization occurs in pegmatites and an alkalic syenite hosted by the Wolverine Complex.
RELATED A.R.: 16781
MINFILE: 093N 180

Dog A.R. 17153 REPORT YEAR: 1987, 62 Pages, 3 Map(s)

OPERATOR(S): **Chevron Can. Res.**
AUTHOR(S): McAllister, S.G. McPherson, M.D.
MINING DIV: Omineca
LOCATION: NTS 093N09W LAT. 55 35 53 LONG. 124 19 47
CLAIM(S): Jigger,Porcupine,Dare,Nahlin
EXPL. TARGET: Gold
WORK DONE: GEOL 2000.0 ha - 1 Map(s); 1:10 000
ROCK 30 sample(s);ME
SOIL 591 sample(s);ME - 2 Map(s); 1:10 000
GEOLOGY: The regional geology is characterized by northwest trending fault-bounded belts. The eastern belt is underlain by Lower Cambrian metamorphic rocks of the Wolverine Complex and Ingenika and Tenakini Groups. Mississippian Slide Mountain Group sediments and greenstones occupy the central belt and the central part of the claim. The western belt is underlain by Upper Triassic-Lower Jurassic Takla Group volcanics and sediments. Mesozoic Omineca Intrusions flank the central belt and intrude all older rocks in the area.
MINFILE: 093N 028

Fair A.R. 18012 REPORT YEAR: 1988, 46 Pages, 4 Map(s)

OPERATOR(S): **Chevron Min.**
AUTHOR(S): McAllister, S.G. Sandberg, T.
MINING DIV: Omineca
LOCATION: NTS 093N09W, 093N10E LAT. 55 41 00 LONG. 124 30 00
CLAIM(S): Fair
EXPL. TARGET: Gold
WORK DONE: EMGR 5.1 km;VLF - 1 Map(s); 1:5000
GEOL 0.1 ha - 3 Map(s); 1:100
ROCK 101 sample(s);AU,CU,MO,PB,ZN,AG,AS,SB
TREN 256.0 m
GEOLOGY: The claim is underlain by argillites and greenstones of the Palaeozoic Slide Mt. Group that have been intruded by diorite of uncertain age. Northwest trending faults predominate on the property. These are often recognized by the associated quartz-iron-carbonate-cromium-mica alteration. The quartz veins trend parallel to the faults.
RELATED A.R.: 16602
MINFILE: 093N 023

Slate A.R. 17901 REPORT YEAR: 1988, 26 Pages, 1 Map(s)

OPERATOR(S): **Forbes, J.R.**
AUTHOR(S): Forbes, J.R.
MINING DIV: Omineca
LOCATION: NTS 093N10E LAT. 55 41 00 LONG. 124 31 00
CLAIM(S): Slate 1-3
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 600.0 ha - 1 Map(s); 1:5000
GEOLOGY: Pensylvanian to Permian Nina Creek rocks are cut by the Manson Creek Fault zone which strikes northwest. Mineralization consists of both placer and lode gold as evidenced by the Farrell, Flagstaff, and Fairview showings.
MINFILE: 093N 023

Jim A.R. 17900 REPORT YEAR: 1988, 27 Pages, 1 Map(s)

OPERATOR(S): **Forbes, J.R.**
AUTHOR(S): Forbes, J.R.
MINING DIV: Omineca
LOCATION: NTS 093N10W LAT. 55 44 00 LONG. 124 37 00
CLAIM(S): Jim 1
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 500.0 ha;AU - 1 Map(s); 1:5000
GEOLOGY: Pensylvanian to Permian Nina Creek rocks are cut by the Manson Creek Fault zone which trends northwest. Mineralization consists of both placer and lode gold as evidenced by Farrell, Flagstaff and Fairview showings.
MINFILE: 093N 130

Solstice A.R. 17623 REPORT YEAR: 1988, 21 Pages

OPERATOR(S): **Brown-Ford Synd.**
AUTHOR(S): Nelles, D.M.
MINING DIV: Omineca

LOCATION: NTS 093N11W, 093N12E LAT. 55 41 19 LONG. 125 32 44
CLAIM(S): Sol 2,Sol 6-9,Sol 15-16
EXPL. TARGET: Gold
WORK DONE: HMIN 22 sample(s);AU
GEOLOGY: The claims are underlain by sediments belonging to the Permo-Pennsylvanian Cache Creek Group. These sediments strike north-northwest and dip predominantly to the east. Folding of the sediments is evident on a regional scale. Minerals characteristic of lower greenschist facies metamorphism have developed as a result of this folding. Mineralization in the form of pyrite blebs and stringers have also developed within tuff and phyllite members. Placer gold is reported to have been recovered from at least three creeks draining the property.

Takla-Rainbow A.R. 17013 REPORT YEAR: 1988, 305 Pages, 32 Map(s)

OPERATOR(S): **Cathedral Gold**
AUTHOR(S): Pesalj, R.
MINING DIV: Omineca
LOCATION: NTS 093N11W LAT. 55 39 54 LONG. 125 18 18
CLAIM(S): Takla,Rainbow,Twin 1-6,T.R.A.,T.R.C.
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: DIAD 6042.0 m 23 hole(s);BQ - 14 Map(s); 1:2500,1:1000
EMGR 14.6 km;VLF - 1 Map(s); 1:2500
GEOL 2000.0 ha - 2 Map(s); 1:5000,1:1000
IPOL 9.5 km - 13 Map(s); 1:1250
LINE 0.5 km
PETR 14 sample(s)
ROCK 64 sample(s);ME
SAMP 1830 sample(s);ME
SOIL 98 sample(s);ME - 2 Map(s); 1:2500
GEOLOGY: Gold-copper-silver mineralization discovered in 1985 was further tested by 19 holes in 1987. Mineralization is spatially and genetically related to younger intrusive phases of the Hogem Batholith adjacent to the contact with Upper Triassic Takla Group volcanics marked by prominent shearing, faulting and hydrothermal alteration. Additional drilling is required to calculate ore reserves.
RELATED A.R.: 02501, 12162, 15487, 16759
MINFILE: 093N 082

Takla-Rainbow A.R. 16759 REPORT YEAR: 1987

OPERATOR(S): **Imperial Metals**
AUTHOR(S): Pesalj, R.
MINING DIV: Omineca
LOCATION: NTS 093N11W LAT. 55 39 53 LONG. 125 18 10
CLAIM(S): Twin 1-6,Takla,Rainbow,T.R.C.,T.R.A.
WORK DONE: DIAD 6041.8 m 23 hole(s);BQ
EMGR 14.6 km;VLF
GEOL 2000.0 ha
IPOL 9.5 km
ROAD 14.2 km
ROCK 64 sample(s);ME
SAMP 1830 sample(s);ME
SOIL 271 sample(s);ME
GEOLOGY: Gold mineralization is spatially and probably genetically related to intrusive granitic porphyry stocks and dykes near the contact between Hogem Batholith and Upper Triassic Takla Group volcanics. The mineralization is confined to subvertical zones marked by micro-shearing, intense fracturing, pyritization, carbonitization and silicification.
RELATED A.R.: 02501, 12162, 13171, 14103, 15319, 15487

Gold A.R. 17298 REPORT YEAR: 1988, 18 Pages

OPERATOR(S): **Shaede, E.A.**
AUTHOR(S): Shaede, E.A.
MINING DIV: Omineca
LOCATION: NTS 093N12E, 093N12W LAT. 55 37 22 LONG. 125 45 00
CLAIM(S): Gold 6
EXPL. TARGET: Gold
WORK DONE: PROS 1.0 ha
GEOLOGY: Permian-Pennsylvanian Cache Creek Group greenstones, cherts and phyllites are sheared and altered to quartz-carbonate-mariposite by a major north striking, east dipping fault. A very strong gold-in-soil anomaly (38,000 ppb) occurs on the footwall side of the fault.

Bay A.R. 17578 REPORT YEAR: 1988, 12 Pages, 2 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Maxwell, G.
MINING DIV: Omineca
LOCATION: NTS 093N12W LAT. 55 36 19 LONG. 125 52 40
CLAIM(S): Bay 1,Kevin,Rod
WORK DONE: SOIL 506 sample(s);AU - 2 Map(s); 1:5000
GEOLOGY: The property is underlain by a north trending sequence of felsic to intermediate volcanics which dip steeply to the west. These volcanics consist mainly of massive flows, tuff and lapilli tuff and belong to the Upper Triassic-Lower Jurassic Sitlika Group.
RELATED A.R.: 14842, 15874

Ogden Mountain A.R. 16737 REPORT YEAR: 1987

OPERATOR(S): **The Continental Jade**
AUTHOR(S): Price, B.J.
MINING DIV: Omineca
LOCATION: NTS 093N13W LAT. 55 50 37 LONG. 125 50 03
CLAIM(S): Angela 1,Doris 2
WORK DONE: ROAD 3.0 km
TREN 300.0 m 6 trench(es)
GEOLOGY: Nephrite bands and lenses occur at the contact of sheared serpentine of Permian or Triassic age and metasedimentary rocks of the Permian-Pennsylvanian Cache Creek Group. A thin band of high quality jade also occurs as a steeply dipping vein-like zone at the contact of serpentine and a leucocratic phase of a granodiorite sill of probable Cretaceous age.
RELATED A.R.: 05221, 05963

Ato A.R. 16830 REPORT YEAR: 1987, 15 Pages, 1 Map(s)

OPERATOR(S): **Cathedral Gold**
AUTHOR(S): Taylor, A.B.
MINING DIV: Omineca
LOCATION: NTS 093N14W LAT. 55 56 58 LONG. 125 16 48
CLAIM(S): Ato I-II
EXPL. TARGET: Gold,Copper
WORK DONE: GEOL 400.0 ha - 1 Map(s); 1:10 000

	ROCK 53 sample(s);ME SOIL 144 sample(s);ME
GEOLOGY:	Upper Triassic Takla Group andesitic volcanics are in contact with Hogem Batholith syenite. Porphyry-style mineralization with small chalcopyrite pods are found in Takla Group rocks near the contact.
MINFILE:	093N 161

Ling A.R. 16831 REPORT YEAR: 1987, 20 Pages, 1 Map(s)

OPERATOR(S):	**Cathedral Gold**
AUTHOR(S):	Taylor, A.B.
MINING DIV:	Omineca
LOCATION:	NTS 093N14W LAT. 55 49 47 LONG. 125 18 21
CLAIM(S):	Ling I-II
EXPL. TARGET:	Copper,Gold
WORK DONE:	GEOL 400.0 ha - 1 Map(s); 1:10 000 ROCK 55 sample(s);ME SOIL 326 sample(s);ME
GEOLOGY:	Upper Triassic Takla Group andesitic volcanics are in contact with Jurassic Hogem Batholith diorite-syenite. Porphyry-style mineralization with anomalous gold values is found sporadically throughout the property.
MINFILE:	093N 089

Germansen A.R. 16933 REPORT YEAR: 1987, 18 Pages, 2 Map(s)

OPERATOR(S):	**Canamerica Precious Metals**
AUTHOR(S):	Fox, M.
MINING DIV:	Omineca
LOCATION:	NTS 093N15E LAT. 55 46 47 LONG. 124 40 45
CLAIM(S):	Placer Leases 18164-18172
EXPL. TARGET:	Gold
WORK DONE:	GEOL - 2 Map(s); 1:5000,1:2500
GEOLOGY:	Geological mapping indicates that much of the property is covered by Recent alluvial deposits, high above the present level of the Germansen and Omineca Rivers. These deposits were probably derived mainly from glacial deposits, although rocks constituting the alluvium are representative of lithologies which are exposed upstream along the Germansen River. Only along the 60 metre (200 foot) escarpment that marks the southern limit of the Germansen delta were rock types seen that correlate with lithologies known to occur in an "up-ice" direction (i.e. porphyritic volcanics of the Upper Triassic Takla Group).

Nina Lake A.R. 17867 REPORT YEAR: 1988, 14 Pages, 7 Map(s)

OPERATOR(S):	**Noranda Ex.**
AUTHOR(S):	Savell, M.J.
MINING DIV:	Omineca
LOCATION:	NTS 093N15E, 093N15W LAT. 55 58 22 LONG. 124 44 47
CLAIM(S):	NL 2-8,NL 14-16,NL 25-26
WORK DONE:	IPOL 3.2 km - 4 Map(s); 1:2500 LINE 18.0 km - 1 Map(s); 1:2500 MAGG 18.0 km - 2 Map(s); 1:2500
GEOLOGY:	The property is underlain by north-northwest striking, westerly dipping crystalline limestone, limestone breccia, dolomite and siltstone of the Middle Cambrian Gog Group. A geophysical survey has detected several features which require additional testing.
RELATED A.R.:	13929, 14994, 16304

Nina A.R. 17940 REPORT YEAR: 1988, 32 Pages, 3 Map(s)

OPERATOR(S):	**Lornex Min.**
AUTHOR(S):	Cope, G.R.
MINING DIV:	Omineca
LOCATION:	NTS 093N15W LAT. 55 56 00 LONG. 124 48 30
CLAIM(S):	Nina I
EXPL. TARGET:	Copper,Silver,Gold
WORK DONE:	DIAD 224.3 m 3 hole(s);BGM - 3 Map(s); 1:250,1:5000 SAMP 18 sample(s);AU,ME
GEOLOGY:	Copper, silver and gold-bearing sulphide-rich lenses occur within sheared Upper Paleozoic basalt.
RELATED A.R.:	13977, 16471
MINFILE:	093N 011, 093N 191

Nina A.R. 16946 REPORT YEAR: 1988, 34 Pages, 3 Map(s)

OPERATOR(S):	**Equinox Res.**
AUTHOR(S):	Leighton, D.G.
MINING DIV:	Omineca
LOCATION:	NTS 093N15W LAT. 55 58 06 LONG. 124 47 03
CLAIM(S):	Nica 1-2
EXPL. TARGET:	Lead,Zinc,Germanium
WORK DONE:	GEOL - 3 Map(s); 1:10 000,1:1000
GEOLOGY:	The property is underlain by a Devonian carbonate complex with lead-zinc-germanium mineralization confined to fault structures. The mineralization occurs in semi-continuous zones as vertical lenses and/or pipe-like structures. Germanium is contained in sphalerite.
MINFILE:	093N 010, 093N 114

PINE PASS 093O

Nat A.R. 18181 REPORT YEAR: 1988, 72 Pages, 9 Map(s)

OPERATOR(S):	**Placer Dome**
AUTHOR(S):	Cannon, R.W. Gareau, M.B.
MINING DIV:	Omineca
LOCATION:	NTS 093O05E LAT. 55 21 00 LONG. 123 43 00
CLAIM(S):	Nat 1-16
EXPL. TARGET:	Gold
WORK DONE:	EMGR 14.7 km;VLF - 4 Map(s); 1:5000 GEOL 400.0 ha - 1 Map(s); 1:5000 LINE 19.4 km MAGG 14.7 km - 3 Map(s); 1:5000 ROCK 20 sample(s);CU,PB,ZN,AG,AU,AS SILT 9 sample(s);CU,PB,ZN,AG,AU,AS SOIL 499 sample(s);CU,PB,ZN,AG,AU,AS - 1 Map(s); 1:5000
GEOLOGY:	The property is underlain by two main rock units consisting of argillite and ultramafics. The argillites are probably part of the Carboniferous Slide Mountain Group. The ultramafic rocks are of an unknown age . A wide zone of intensely carbonatized, weakly to moderately silicified rocks appear to separate the two rock units, these altered rocks were originally probably ultramafic in composition. Traces of pyrite occur in these altered ultramafics.

Ursa A.R. 16781 **REPORT YEAR: 1988, 12 Pages, 1 Map(s)**

OPERATOR(S): **Halleran, A.**

AUTHOR(S): Halleran, A.

MINING DIV: Omineca

LOCATION: NTS 093O05W LAT. 55 29 37 LONG. 123 57 39

CLAIM(S): Ursa 1

EXPL. TARGET: Graphite,Rare Earths

WORK DONE: PROS 641.0 ha - 1 Map(s); 1:15 000
ROCK 4 sample(s);ME

GEOLOGY: Pegmatites containing trace monazite crystals occur in the Wolverine Complex.

MINFILE: 093O

Ursa A.R. 17734 **REPORT YEAR: 1988, 17 Pages**

OPERATOR(S): **Halleran, A.A.D.**

AUTHOR(S): Halleran, A.A.D.

MINING DIV: Omineca

LOCATION: NTS 093O12W LAT. 55 32 00 LONG. 123 55 00

CLAIM(S): Laura 1-3

EXPL. TARGET: Rare Earths

WORK DONE: PROS 500.0 ha
ROCK 10 sample(s);ME

GEOLOGY: Rare earth elements were detected in pegmatites and foliated syenitic rocks within the Proterozoic Wolverine Complex. Initial sampling suggested that these rocks are of economic interest, but their age and distribution are unknown.

MINFILE: 093O

FORT GRAHAME 094C

Cabin A.R. 17458 REPORT YEAR: 1988, 29 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): McAtee, C.L. Hopper, D.H
MINING DIV: Omineca
LOCATION: NTS 094C03E LAT. 56 13 31 LONG. 125 05 49
CLAIM(S): Cabin,Cabin 1-2
WORK DONE: GEOL 2.0 ha
ROCK 27 sample(s);ME
SILT 11 sample(s);ME
SOIL 122 sample(s);ME
GEOLOGY: Tenakihi Group quartzites and quartz-mica schists occur as a major anticlinal structure. Silver and gold values occur in brecciated quartz veins related to shears. Veins are 0.91-4.57 metres wide and 30-91 metres long.
MINFILE: 094C 022

Goats A.R. 17825 REPORT YEAR: 1988, 29 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): McAtee, C.L. Hopper, D.H
MINING DIV: Omineca
LOCATION: NTS 094C03E LAT. 56 11 30 LONG. 125 02 04
CLAIM(S): Goats,Cabin 38
WORK DONE: ROCK 19 sample(s);ME
SILT 7 sample(s);ME
GEOLOGY: Tenakihi Group quartzites and quartz-mica schists occur as a major anticlinal structure. Silver and gold values occur in brecciated quartz veins related to shears. Veins are 0.91-4.57 metres wide and 30-91 metres long.
MINFILE: 094C 057

Vega A.R. 18044 REPORT YEAR: 1988, 304 Pages, 3 Map(s)

OPERATOR(S): **Canmine Dev. Cyprus Gold**
AUTHOR(S): Stevenson, D.B. Weishaupt, R.J.
MINING DIV: Omineca
LOCATION: NTS 094C03W LAT. 56 09 00 LONG. 125 20 00
CLAIM(S): Vega,Vega 2-3,Grum
EXPL. TARGET: Copper,Gold
WORK DONE: DIAD 1088.1 m 8 hole(s);BQ
IPOL 9.5 km
LINE 7.3 km
ROCK 29 sample(s);CU,PB,ZN,AU,AG,AS
SAMP 679 sample(s);CU,PB,ZN,AU,AG,AS
SOIL 1969 sample(s);CU,PB,ZN,AU,AG,AS - 3 Map(s); 1:5000
GEOLOGY: The Vega group lies on a north-northwest trending fault structure in Upper Triassic to Jurassic age Takla Group volcanics. Several prominant fault structures cut the mineral zone into several segments with right hand offsets. The zones may be 30 metres in width. Mineralization consists of chalcopyrite, pyrite and minor bornite and gold, either disseminated or concentrated along calcite stringers, shears and fractures.
RELATED A.R.: 00587, 16335
MINFILE: 094C 021

Matel A.R. 17743 REPORT YEAR: 1988, 35 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): McAtee, C.L.
MINING DIV: Omineca
LOCATION: NTS 094C04E LAT. 56 12 11 LONG. 125 43 37
CLAIM(S): Matel
WORK DONE: PROS 5.7 ha
GEOLOGY: The claim appears to be underlain by Hogem Batholith granodiorite and quartz diorite. A quartz vein occurs in the quartz diorite.
MINFILE: 094C 016

Heidi-Lay A.R. 17457 REPORT YEAR: 1988, 35 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): McAtee, C.L.
MINING DIV: Omineca
LOCATION: NTS 094C05E, 094C05W LAT. 56 27 30 LONG. 125 46 20
CLAIM(S): Heidi 1-2,Lay 1-4
WORK DONE: GEOL 2300.0 ha
ROCK 44 sample(s);ME
SILT 9 sample(s);ME
SOIL 342 sample(s);ME
GEOLOGY: Upper Triassic Takla Group rocks are in fault contact with Mississippian Slide Mountain Group volcanic and sedimentary rocks intruded by quartz-biotite porphyry dykes or plugs. Low precious metal values occur in narrow quartz and quartz-carbonate vein systems.
MINFILE: 094C 010, 094C 011, 094C 012, 094C 013, 094C 059

Black Gold A.R. 17744 REPORT YEAR: 1988, 35 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): McAtee, C.L.
MINING DIV: Omineca
LOCATION: NTS 094C06W LAT. 56 21 50 LONG. 125 20 16
CLAIM(S): Black Gold
WORK DONE: PROS 432.0 ha
GEOLOGY: The claim is underlain by rocks of the Wolverine Complex which are the altered and granitized equivalents of the regionally metamorphosed Tenahiki and Ingenika Group rocks.
MINFILE: 094C 014

Dolly A.R. 17442 REPORT YEAR: 1988, 35 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): McAtee, C.L.
MINING DIV: Omineca
LOCATION: NTS 094C06W LAT. 56 18 43 LONG. 125 24 38
CLAIM(S): Dolly 1-2
WORK DONE: GEOL 416.0 ha
ROCK 19 sample(s);ME
SILT 4 sample(s);ME
SOIL 125 sample(s);ME
GEOLOGY: The claims are underlain by greenstone, dark green tuffs, argillite, phyllite and graphitic schist. Quartz-carbonate veins, veinlets and stringers are associated with strong northwest trending shear zones.

FORT GRAHAME 094C

MINFILE: 094C 015, 094C 041, 094C 042

MCCONNELL CREEK 094D

Motase Lake A.R. 17339 REPORT YEAR: 1988, 143 Pages, 6 Map(s)

OPERATOR(S): **Prolific Res.**
AUTHOR(S): Beattie, B.C. Davis, J.
MINING DIV: Omineca
LOCATION: NTS 094D03E LAT. 56 04 04 LONG. 127 05 44
CLAIM(S): Mot 1-7,Fc 13,Fc 15
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 976.3 m 10 hole(s);NQ - 4 Map(s); 1:250
GEOL 525.0 ha - 1 Map(s); 1:1000
PROS 2200.0 ha - 1 Map(s); 1:5000
ROCK 177 sample(s);AU,AG
SAMP 746 sample(s);AU,AG
GEOLOGY: Lower Jurassic Hazelton Group volcanics and Lower Cretaceous Bowser Lake Group sediments have been intruded by Bulkley intrusions consisting of dykes, sills and stocks varying in composition from granodiorite to diorite. Mineralization occurs either in Hazelton Group volcanics or Bowser Lake Group sediments adjacent to the dykes or sills or within the intrusives themselves.
RELATED A.R.: 08844, 10378, 10432, 11630, 11631, 15392
MINFILE: 094D 001

Jake A.R. 16838 REPORT YEAR: 1988, 141 Pages, 10 Map(s)

OPERATOR(S): **QPX Min.**
AUTHOR(S): Sketchley, D.A.
MINING DIV: Omineca
LOCATION: NTS 094D03W LAT. 56 12 55 LONG. 127 20 06
CLAIM(S): Jake 1-8
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc,Molybdenum/Molybdenite
WORK DONE: GEOL 4000.0 ha - 2 Map(s); 1:10 000
ROCK 197 sample(s);ME
SILT 178 sample(s);ME
SOIL 596 sample(s);ME - 8 Map(s); 1:10 000
GEOLOGY: Gold-silver-copper-molybdenum-lead-zinc porphyry-style mineralization occurs in and adjacent to Tertiary Babine/Kastberg Intrusions (plagioclase porphyry) that intrude Lower Cretaceous Bowser Lake Group sedimentary rocks.
MINFILE: 094D 061

T.J.C. A.R. 16844 REPORT YEAR: 1988, 121 Pages, 8 Map(s)

OPERATOR(S): **QPX Min.**
AUTHOR(S): Sketchley, D.A.
MINING DIV: Omineca
LOCATION: NTS 094D04E LAT. 56 03 18 LONG. 127 36 02
CLAIM(S): T.J.C. 1-7
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: GEOL 3500.0 ha - 2 Map(s); 1:10 000
ROCK 42 sample(s);ME
SILT 202 sample(s);ME
SOIL 967 sample(s);ME - 6 Map(s); 1:10 000
GEOLOGY: Gold-silver-copper-lead-zinc bearing quartz vein float occurs in an area underlain by Lower Cretaceous Bowser Lake Group sedimentary rocks.
MINFILE: 094D

Tommy Jack Creek A.R. 16943 REPORT YEAR: 1988, 102 Pages, 18 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Myers, D.E.
MINING DIV: Omineca
LOCATION: NTS 094D04E LAT. 56 07 54 LONG. 127 36 48
CLAIM(S): Tom,Tom 3,Tom 5
EXPL. TARGET: Gold,Silver,Lead,Zinc,Arsenic
WORK DONE: DIAD 1690.5 m 25 hole(s);NQ - 18 Map(s); 1:5000,1:250,1:100
SAMP 338 sample(s);AU,AG
GEOLOGY: Lower Cretaceous Bowser Lake Group clastic sediments are intruded by dacitic intrusives and cut by numerous faults. Mineralization consisting of quartz-carbonate veinlets with pyrite-sphalerite-galena-arsenopyrite-chalcopyrite-pyrrhotite-tetrahedrite cut the clastic sediments especially where intruded and faulted.
RELATED A.R.: 13778, 14631, 15515, 16062
MINFILE: 094D 031, 094D 036

Ice A.R. 17742 REPORT YEAR: 1988, 35 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): McAtee, C.L.
MINING DIV: Omineca
LOCATION: NTS 094D08E LAT. 56 24 42 LONG. 126 05 10
CLAIM(S): Ice
WORK DONE: PROS 86.0 ha
GEOLOGY: The claim covers volcanic flows, breccias, tuffs, limestone, Alaska-type ultramafics and the edge of a diorite pluton.
MINFILE: 094D 020

Inge A.R. 17409 REPORT YEAR: 1988, 90 Pages, 10 Map(s)

OPERATOR(S): **Ritz Res.**
AUTHOR(S): McConnell, D.L.
MINING DIV: Omineca
LOCATION: NTS 094D09E, 094D09W LAT. 56 40 31 LONG. 126 14 36
CLAIM(S): Inge 1-4
WORK DONE: EMAB 210.0 km;VLF ,HLEM - 6 Map(s); 1:20 000
MAGA 210.0 km - 4 Map(s); 1:20 000
GEOLOGY: The property is underlain by volcanic and sedimentary rocks of the Upper Triassic-Lower Jurassic Takla Group intruded by granodiorite, quartz diorite and diorite of the Omineca Intrusions.
RELATED A.R.: 10341, 12803, 13585, 14630, 15586
MINFILE: 094D 010

Jen A.R. 17417 REPORT YEAR: 1988, 24 Pages, 1 Map(s)

OPERATOR(S): **Asitka Res.**
AUTHOR(S): Allen, D.G.
MINING DIV: Omineca
LOCATION: NTS 094D15E LAT. 56 46 40 LONG. 126 34 17
CLAIM(S): Jen 1-2
WORK DONE: LINE 10.9 km
ROCK 4 sample(s);ME
SOIL 156 sample(s);ME - 1 Map(s); 1:5000

MCCONNELL CREEK 094D

GEOLOGY: The property is underlain by Upper Triassic Takla Group volcaniclastic rocks and related monzodiorite intrusions. Soil sampling has revealed copper, zinc and scattered gold geochemical anomalies.
RELATED A.R.: 16067

KMA A.R. 17925 REPORT YEAR: 1988, 37 Pages, 1 Map(s)

OPERATOR(S): **Mingold Res.**
AUTHOR(S): Taylor, K.J.
MINING DIV: Omineca
LOCATION: NTS 094D15E LAT. 56 46 00 LONG. 126 32 00
CLAIM(S): KMA 1-2
EXPL. TARGET: Copper,Gold,Silver
WORK DONE: PROS 150.0 ha - 1 Map(s); 1:10 000
ROCK 20 sample(s);CU,AU,AG
SOIL 162 sample(s);CU,AU,AG
GEOLOGY: The property is underlain primarily by Upper Triassic Takla Group feldspathic andesite which has been altered and mineralized by a northwest trending shear zone 1.5 metres wide. Strong chlorite, epidote and quartz alteration occur locally along the shear. Malachite, azurite, bornite and chalcocite are present in mineralized veins adjacent to the shear zone. Anomalous silver and gold values are also present.
MINFILE: 094D 005

Nor A.R. 16974 REPORT YEAR: 1988, 19 Pages, 1 Map(s)

OPERATOR(S): **Cooke, D.L.**
AUTHOR(S): Cooke, D.L.
MINING DIV: Omineca
LOCATION: NTS 094D15W LAT. 56 59 09 LONG. 126 47 22
CLAIM(S): Nor 4
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: LINE 20.0 km
SILT 1 sample(s);CU,PB,ZN,AS,SB,AG,AU
SOIL 217 sample(s);CU,PB,ZN,AS,SB,AG,AU - 1 Map(s); 1:5000
GEOLOGY: The claims are underlain by Upper Triassic Takla Group volcanic rocks consisting of andesite and dacite. An intermediate stock intrudes the volcanics. A pyritic shear zone containing silica, sericite and pyrophyllite cuts across the southeast part of the property. Vein quartz in float contains copper, lead, zinc, gold and silver values.

TOODOGGONE RIVER 094E

Dun A.R. 17594 REPORT YEAR: 1988, 24 Pages, 3 Map(s)

OPERATOR(S): **Can. Venture**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Omineca
LOCATION: NTS 094E02E, 094E02W LAT. 57 02 15 LONG. 126 45 00
CLAIM(S): Dun 1-2
WORK DONE: EMAB 44.0 km; VLF - 2 Map(s); 1:10 000
MAGA 44.0 km - 1 Map(s); 1:10 000
GEOLOGY: The underlying rocks consist of basalt flows and breccia of the Upper Triassic Takla Group and Middle Jurassic Toodoggone volcanics. The Toodoggone rocks include Adoogatcho Creek Formation crystal ash tuffs and Moyez Creek conglomerate, greywacke, bedded crystal tuff and epiclastic sedimentary rocks. These rocks are intruded by Jurassic granodiorite and quartz diorite. The majority of faults trend northeast and other faults tend to be cross-cutting.

Eric A.R. 17595 REPORT YEAR: 1988, 28 Pages, 3 Map(s)

OPERATOR(S): **Can. Venture**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Omineca
LOCATION: NTS 094E02E LAT. 57 12 00 LONG. 126 41 00
CLAIM(S): Dawn
WORK DONE: EMAB 50.0 km; VLF - 2 Map(s); 1:10 000
MAGA 50.0 km - 1 Map(s); 1:10 000
GEOLOGY: The underlying rocks consist of basalt flows and breccia of the Upper Triassic Takla Group and Middle Jurassic Toodoggone volcanics. The Toodoggone rocks include Adoogatcho Creek Formation crystal ash tuffs, Moyez Creek conglomerate, greywacke, bedded crystal tuff and epiclastic sedimentary rocks. These rocks are intruded by Jurassic granodiorite and quartz diorite. The majority of faults trend northeast and other faults tend to be cross-cutting.
MINFILE: 094E 057

Fog A.R. 17460 REPORT YEAR: 1988, 22 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): Burns, P.J.
MINING DIV: Omineca
LOCATION: NTS 094E02E LAT. 57 05 12 LONG. 126 40 21
CLAIM(S): Fog
WORK DONE: GEOL 225.0 ha
ROCK 14 sample(s);ME
SILT 29 sample(s);ME
GEOLOGY: The claim is underlain by Middle Jurassic Toodoggone volcanics (Adoogatcho Creek Formation - Moyez Creek volcaniclastics). Several base/precious metal showings occur on the property.

Jim A.R. 17461 REPORT YEAR: 1988, 20 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): Burns, P.J.
MINING DIV: Omineca
LOCATION: NTS 094E02E LAT. 57 00 37 LONG. 126 38 49
CLAIM(S): Jim 1-2
WORK DONE: GEOL 900.0 ha
ROCK 8 sample(s);ME
SILT 30 sample(s);ME
SOIL 40 sample(s);ME
GEOLOGY: Upper Triassic Takla Group volcanics, Middle Jurassic Toodoggone volcanics (Adoogatcho Creek Formation) and Permian Asitka Group limestone, argillite and andesite underlie the property.

Needle A.R. 17602 REPORT YEAR: 1988, 24 Pages, 3 Map(s)

OPERATOR(S): **Can. Venture**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Omineca
LOCATION: NTS 094E02E LAT. 57 02 30 LONG. 126 40 00

CLAIM(S): Will,Needle 1-2
WORK DONE: EMAB 80.0 km; VLF - 2 Map(s); 1:10 000
MAGA 80.0 km - 1 Map(s); 1:10 000
GEOLOGY: The property is underlain by Permian Asitka Group sedimentary rocks, Upper Triassic Takla Group volcanic flow rocks, Adoogatcho Creek Formation tuffs, Hazelton Group volcanics, and Lower to Middle Jurassic dykes and stocks of quartz monzonite and/or granodiorite. The country rocks are cut by northwest and northeast striking faults.

Nel A.R. 17593 REPORT YEAR: 1988, 25 Pages, 3 Map(s)

OPERATOR(S): **Can. Venture**
AUTHOR(S): Hermary, R.G. Woods, D.V.
MINING DIV: Omineca
LOCATION: NTS 094E02E, 094E02W LAT. 57 07 00 LONG. 126 45 00
CLAIM(S): Nel 1,Nel 3,Nell 2,Nell 4,Last
WORK DONE: EMAB 180.0 km; VLF - 2 Map(s); 1:10 000
MAGA 180.0 km - 1 Map(s); 1:10 000
GEOLOGY: The underlying rocks consist of basalt flows and breccia of the Upper Triassic Takla Group and Middle Jurassic Toodoggone volcanics. The Toodoggone rocks include Adoogatcho Creek Formation crystal ash tuffs and Moyez Creek conglomerate, greywacke, bedded crystal tuff and epiclastic sedimentary rocks. These rocks are intruded by Jurassic granodiorite and quartz diorite. The majority of faults trend northeast and other faults tend to be cross-cutting.
MINFILE: 094E 081, 094E 082

Peak A.R. 17603 REPORT YEAR: 1988, 26 Pages, 3 Map(s)

OPERATOR(S): **Can. Venture**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Omineca
LOCATION: NTS 094E02E LAT. 57 10 00 LONG. 126 42 00
CLAIM(S): Peak,Au 1-2,Swan 1-2
WORK DONE: EMAB 148.0 km; VLF - 2 Map(s); 1:10 000
MAGA 148.0 km - 1 Map(s); 1:10 000
GEOLOGY: The underlying rocks are Lower to Middle Jurassic intrusives and several suites of the Toodoggone volcanics. These rocks include several limonitic gossan zones. Numerous faults strike northwest.

Peak A.R. 17454 REPORT YEAR: 1988, 18 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): Burns, P.J.
MINING DIV: Omineca
LOCATION: NTS 094E02E, 094E02W LAT. 57 10 51 LONG. 126 44 07
CLAIM(S): Peak 1-2
WORK DONE: GEOL 600.0 ha
ROCK 5 sample(s);ME
SOIL 27 sample(s);ME
GEOLOGY: The claims are underlain by Middle Jurassic Toodoggone volcanics.
MINFILE: 094E

Shasta A.R. 17519 REPORT YEAR: 1987, 224 Pages, 1 Map(s)

OPERATOR(S): **Esso Min. Can.**
AUTHOR(S): Holbeck, P. Thiersch, P.
MINING DIV: Omineca
LOCATION: NTS 094E02E LAT. 57 14 50 LONG. 126 59 55
CLAIM(S): Shasta 1
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 2369.0 m 24 hole(s);BQ - 1 Map(s); 1:1000
GEOLOGY: The property is underlain by Toodoggone volcanic and volcaniclastic rocks, and possibly the Hazelton Group. Mineralization is hosted by structurally controlled quartz-calcite stockwork and breccia zones within large areas of weakly veined and hydrothermally altered rock. Multi-episodic mineralization and rebrecciation is evident in varicoloured crystalline and chalcedonic cross-cutting quartz veins and late stage calcite veins. Mineralization consists of pyrite, galena, sphalerite, rare chalcopyrite, acanthite, native silver and electrum. Alteration is highly variable in both extent and intensity and ranges from broad zones of propylitic (chlorite, epidote and calcite +/- pyrite) alteration to scattered narrow zones of silicification with minor clay alteration.
RELATED A.R.: 08781, 09886, 11715
MINFILE: 094E 050

Tart A.R. 17604 REPORT YEAR: 1988, 25 Pages, 3 Map(s)

OPERATOR(S): **Can. Venture**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Omineca
LOCATION: NTS 094E02E LAT. 57 06 00 LONG. 126 39 00
CLAIM(S): Tart
WORK DONE: EMAB 23.0 km; VLF - 2 Map(s); 1:10 000
MAGA 23.0 km - 1 Map(s); 1:10 000
GEOLOGY: The underlying rocks are Triassic Takla Group porphyritic basalt and andesite, Lower to Middle Jurassic Toodoggone pyroclastics and foliated granodiorite and/or quartz diorite and feldspar porphyry intrusives. These rocks are heavily faulted, and most faults strike northwest.

Finlay River A.R. 17459 REPORT YEAR: 1988, 90 Pages, 1 Map(s)

OPERATOR(S): **Skylark Res.**
AUTHOR(S): Burns, P.J.
MINING DIV: Omineca
LOCATION: NTS 094E02W, 094E07W LAT. 57 11 16 LONG. 126 49 29
CLAIM(S): Jok 1-6,Wrich 1,Skarn 1-4,Grace 5,Error 1-8
WORK DONE: GEOL 8240.0 ha - 1 Map(s); 1:13 158
ROCK 223 sample(s);ME
SOIL 462 sample(s);ME
GEOLOGY: Permian Asitka Group limestones are in thrust contact with Upper Triassic Takla Group volcanics which are intruded by the Jock Creek (Black Lake) stock. These rocks are overlain by Lower Jurassic Hazelton Group volcanics and Middle Jurassic Toodoggone volcanics. Several periods of post-mineral faulting/folding are evident. Precious and base metal occurrences (epithermal quartz veins, quartz breccia, stockwork systems and quartz-carbonate shear zones) are associated with regional and localized structures.
MINFILE: 094E 047, 094E 048, 094E 049

Kemess A.R. 16852 REPORT YEAR: 1988, 75 Pages, 10 Map(s)

OPERATOR(S): **St. Phillips Res.**
AUTHOR(S): Coffin, D. Mertens, H.

MINING DIV: Omineca
LOCATION: NTS 094E02W, 094E02E, 094D15E LAT. 57 00 00 LONG. 126 45 00
CLAIM(S): Ron 4,DU
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: EMGR 30.3 km;VLF - 4 Map(s); 1:5000
LINE 31.5 km
SOIL 1102 sample(s);ME - 6 Map(s); 1:2500
GEOLOGY: The property is largely covered by overburden but regional mapping shows it to be underlain by andesitic plagioclase porphyries of the Upper Triassic Takla Group. Monzonite intrusives have been intersected in diamond drill core in the northwest corner of the DU claim. A northwest trending fault marks the boundary between interbedded volcanics and andesitic volcanics. The Kemess Creek valley may be a fault zone with another possible northwest trending fault occurring along the western side of the property.
RELATED A.R.: 10161, 12485, 13027, 14575
MINFILE: 094E 094

Leghorn A.R. 17898 REPORT YEAR: 1988, 22 Pages, 6 Map(s)

OPERATOR(S): **Energex Min.**
AUTHOR(S): Eccles, L.
MINING DIV: Omineca
LOCATION: NTS 094E02W LAT. 57 13 00 LONG. 126 58 00
CLAIM(S): Leghorn
EXPL. TARGET: Gold,Silver
WORK DONE: ROCK 25 sample(s);AU,AG,PB,ZN,CU - 3 Map(s); 1:500
SOIL 38 sample(s);AU,AG,PB,ZN,CU - 3 Map(s); 1:250
GEOLOGY: Takla andesitic to basaltic flows are intruded by Omineca granitic to syenitic intrusives. Narrow quartz and carbonate viens contain chalcopyrite to galena and anomalous precious metals (gold, silver).
RELATED A.R.: 11525, 14167

Steel A.R. 17452 REPORT YEAR: 1988, 24 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): Burns, P.J.
MINING DIV: Omineca
LOCATION: NTS 094E02W LAT. 57 08 45 LONG. 126 58 10
CLAIM(S): Steel 1-2
WORK DONE: GEOL 900.0 ha
ROCK 20 sample(s);ME
SILT 23 sample(s);ME
SOIL 34 sample(s);ME
GEOLOGY: Upper Triassic Takla Group andesitic volcanics have been cut by numerous widely spaced narrow quartz-carbonate veins and veinlets containing gold-silver-copper mineralization.
MINFILE: 094E

Thutade Lake A.R. 16882 REPORT YEAR: 1988, 146 Pages, 10 Map(s)

OPERATOR(S): **Hermes Ventures**
AUTHOR(S): Coffin, D. Mertens, H.
MINING DIV: Omineca
LOCATION: NTS 094E02W LAT. 57 03 38 LONG. 126 51 33
CLAIM(S): Lake 2,Ron 1
EXPL. TARGET: Gold,Copper,Lead,Zinc
WORK DONE: EMGR 52.9 km;VLF - 4 Map(s); 1:5000
LINE 52.9 km
MAGG 52.9 km - 1 Map(s); 1:5000
SOIL 880 sample(s);ME - 5 Map(s); 1:5000
GEOLOGY: Intermediate volcanics and associated sediments of the Upper Triassic Takla Group occur. A large body of intrusives including monzonite, quartz monzonite and granodiorite underlies the middle of the property with Triassic or younger marble occurring towards the northwest corner. The major structures are north-northwest striking faults with some thrust faults tentatively identified on the property's eastern side.
MINFILE: 094E 013, 094E 014, 094E 015

Wrich A.R. 18098 REPORT YEAR: 1988, 122 Pages, 1 Map(s)

OPERATOR(S): **Skylark Res.**
AUTHOR(S): Wesa, G.L.
MINING DIV: Omineca
LOCATION: NTS 094E02W LAT. 57 09 00 LONG. 126 46 00
CLAIM(S): Wrich 1
EXPL. TARGET: Silver,Gold,Zinc,Lead,Copper
WORK DONE: DIAD 963.4 m 10 hole(s);BQ
GEOL 150.0 ha - 1 Map(s); 1:500
SAMP 278 sample(s);CU,PB,ZN,AG,SB,AU
GEOLOGY: Precious (silver, gold) metal and base (zinc, lead, copper) metal mineralization occurs in four quartz-carbonate veins hosted in dark grey-green, locally chlorite-epidote altered, andesitic volcanic flows and tuffs of Upper Triassic Takla Group. Evidence suggests the mineralized veins are associated with steeply dipping, east trending faults and a Toodoggone age quartz-eye feldspar porphyry hypabyssal dyke.
RELATED A.R.: 10705, 14069, 16470
MINFILE: 094E 082

Beachview A.R. 18026 REPORT YEAR: 1988, 88 Pages, 5 Map(s)

OPERATOR(S): **Beachview Res.**
AUTHOR(S): Adamec, J.D.
MINING DIV: Omineca
LOCATION: NTS 094E03E, 094E04E, 094E06E, 094E07E LAT. 57 15 00 LONG. 127 04 00
CLAIM(S): Heckle,Jeckle,Jerry,Lac Noir,Met II,Ursus I-IV,Oro I-II
EXPL. TARGET: Gold
WORK DONE: GEOL 2500.0 ha
ROCK 110 sample(s);AU,AG,AS,CU,MO,PB,ZN
SOIL 473 sample(s);AU,AG,AS,CU,MO,PB,ZN - 5 Map(s); 1:10 000
GEOLOGY: The Toodoggone River area lies within the eastern margin of the Intermontane Belt. The oldest rocks exposed are wedges of crystalline limestone that have been correlated with the Permian Asitka Group. Andesitic flows and pyroclastic rocks belong to the Late Triassic Takla Group. The Omineca intrusions granodiorite to quartz monzonite, are Jurassic and Cretaceous age. The Toodoggone volcanics overlie the Takla Group. The belt is north-west trending. Four mineral types are recognized: porphyry, skarn, stratabound and epithermal.
MINFILE: 094E 051

Black A.R. 17252 REPORT YEAR: 1988, 31 Pages, 2 Map(s)

OPERATOR(S):	**Lexington Res.**	
AUTHOR(S):	Woods, D.V.	
MINING DIV:	Omineca	
LOCATION:	NTS 094E03E, 094E06E	LAT. 57 15 32 LONG. 127 04 24
CLAIM(S):	Black 1,Black III	
WORK DONE:	MAGA 100.0 km - 2 Map(s); 1:10 000	
GEOLOGY:	The property is entirely underlain by the Lower-Middle Jurassic Black Lake quartz monzonite and granodiorite intrusive. Volcanic rocks of the Upper Triassic Takla Group and Middle Jurassic Toodoggone volcanics are in fault contact with the Jurassic intrusives near the northeast corner of the property.	
RELATED A.R.:	16068	

Black A.R. 17262 REPORT YEAR: 1988, 30 Pages, 2 Map(s)

OPERATOR(S):	**Ashworth, C.E.**	
AUTHOR(S):	Woods, D.V.	
MINING DIV:	Omineca	
LOCATION:	NTS 094E03E, 094E06E	LAT. 57 15 00 LONG. 127 02 41
CLAIM(S):	Black IV	
WORK DONE:	MAGA 45.0 km - 2 Map(s); 1:10 000	
GEOLOGY:	The property is entirely underlain by the Lower-Middle Jurassic Black Lake quartz monzonite and granodiorite intrusive. Volcanic rocks of the Upper Triassic Takla Group and Middle Jurassic Toodoggone volcanics are in fault contact with the intrusives near the northeast corner of the property.	

Amethyst Valley A.R. 17683 REPORT YEAR: 1988, 99 Pages, 6 Map(s)

OPERATOR(S):	**Shayna Res.**	
AUTHOR(S):	Lyman, D.A.	
MINING DIV:	Omineca	
LOCATION:	NTS 094E06E	LAT. 57 29 00 LONG. 127 09 00
CLAIM(S):	Kidview,Amethyst Valley	
EXPL. TARGET:	Gold,Silver,Copper,Lead,Zinc	
WORK DONE:	EMGR 15.4 km; VLF - 1 Map(s); 1:2500 GEOL 750.0 ha - 2 Map(s); 1:5000,1:2500 MAGG 15.4 km - 1 Map(s); 1:2500 ROCK 62 sample(s);ME SILT 54 sample(s);ME SOIL 322 sample(s);ME - 2 Map(s); 1:2500	
GEOLOGY:	Upper Triassic Takla Group intermediate volcanic rocks and Lower to Middle Jurassic McClair Creek Formation tuffs, lapilli tuffs and flows are intruded by feldspar porphyry sills and dykes. Anomalous base metal and precious metal values are associated with silicified feldspar porphyry zones and northerly trending shear zones.	

Chappelle A.R. 18083 REPORT YEAR: 1988, 37 Pages, 1 Map(s)

OPERATOR(S):	**Multinational Min.**	
AUTHOR(S):	Carter, N.C.	
MINING DIV:	Omineca	
LOCATION:	NTS 094E06E	LAT. 57 17 00 LONG. 127 06 00
CLAIM(S):	Mining Lease 13	
EXPL. TARGET:	Gold,Silver,Copper,Lead,Zinc	
WORK DONE:	DIAD 371.8 m 3 hole(s);NQ - 1 Map(s); 1:12 000 SAMP 32 sample(s);AU,AG,CU,PB,ZN	
GEOLOGY:	Seven known vein systems occur in Triassic Takla Group augite andesites in the western part of the property. The veins strike northeast to west-northwest and are steeply dipping. Wallrocks are variably silicified and altered to sericite, clay minerals and carbonate with intensity increasing with proximity to the vein structures. TheTakla Group rocks are overlain by gently dipping porphyritic flows and fragmental rocks of the Toodoggone volcanic sequence.	
RELATED A.R.:	09280	
MINFILE:	094E 026	

Chappelle Gold A.R. 16741 REPORT YEAR: 1987

OPERATOR(S):	**Multinational Min.**	
AUTHOR(S):	Carter, N.C.	
MINING DIV:	Omineca	
LOCATION:	NTS 094E06E	LAT. 57 17 16 LONG. 127 06 13
CLAIM(S):	Chappelle 27,Mining Lease 13	
WORK DONE:	DIAD 3614.6 m 28 hole(s);NQ SAMP 500 sample(s);AU,AG	
GEOLOGY:	Precious metal quartz vein mineralization is principally hosted by Upper Triassic Takla Group volcanic rocks north of their contact with granitic rocks of the Black Lake stock. The veins strike northeasterly to west-northwest and are steeply dipping.	
RELATED A.R.:	03343, 03367, 03418, 03419, 04066, 05268, 05667, 06096, 07533, 09889, 10662, 11516, 11398, 1532	

Dave Price A.R. 16994 REPORT YEAR: 1988, 25 Pages

OPERATOR(S):	**Western Horizons Res.**	
AUTHOR(S):	Gower, S.C.	
MINING DIV:	Omineca	
LOCATION:	NTS 094E06E	LAT. 57 18 00 LONG. 127 02 00
CLAIM(S):	Dave Price	
EXPL. TARGET:	Gold,Silver	
WORK DONE:	SAMP 18 sample(s);CU,AU,AG TREN 12.0 m 1 trench(es)	
GEOLOGY:	At least four gossanous zones of brecciated and hydrothermally altered quartz-sericite-pyrite crystal tuff are evident on the property. The host rocks are porphyritic flow breccias of the Toodoggone volcanics.	

Furlong A.R. 17939 REPORT YEAR: 1988, 47 Pages, 2 Map(s)

OPERATOR(S):	**Energex Min.**	
AUTHOR(S):	Eccles, L.	
MINING DIV:	Omineca	
LOCATION:	NTS 094E06E	LAT. 57 27 00 LONG. 127 14 00
CLAIM(S):	Furlong,Tour	
EXPL. TARGET:	Gold,Silver	
WORK DONE:	SOIL 853 sample(s);AU,AG,CU,PB,ZN - 2 Map(s); 1:5000	
GEOLOGY:	The property is underlain by Lower Jurassic Toodoggone volcanics including andesite flows and tuffs. Host epithermal alteration zones containing clays and quartz and gold silver mineralization are probable in this area, underlying thick overburden cover.	

GWP A.R. 17304 REPORT YEAR: 1988, 86 Pages, 8 Map(s)

OPERATOR(S): **Cyprus Metals**
AUTHOR(S): Tompson, W.D.
MINING DIV: Omineca
LOCATION: NTS 094E06E LAT. 57 21 30 LONG. 127 10 49
CLAIM(S): GWP 454,GWP 357
EXPL. TARGET: Gold,Silver
WORK DONE: IPOL 1.8 km - 5 Map(s); 1:2500,1:1000
LINE 1.8 km
SOIL 159 sample(s);AU,AG - 3 Map(s); 1:10 000,1:5000
GEOLOGY: The claims are covered by unconsolidated glacial deposits but bedrock is believed to be flows of the Middle Jurassic Toodoggone volcanics.
RELATED A.R.: 15632

JD A.R. 18015 REPORT YEAR: 1988, 258 Pages, 6 Map(s)

OPERATOR(S): **Energex Min.**
AUTHOR(S): Eccles, L. Caira, N.
MINING DIV: Omineca
LOCATION: NTS 094E06E LAT. 57 26 00 LONG. 127 09 00
CLAIM(S): Gas I-II,JM,JD,JU Fr.,JC Fr.,JK Fr.,Moose 3,Horn 2 Fr.,Was I-II
EXPL. TARGET: Gold,Silver
WORK DONE: SAMP 1760 sample(s);AU,AG - 1 Map(s); 1:2000
SOIL 1593 sample(s);AU,AG,CU,PB,ZN - 5 Map(s); 1:2000
TREN 4935.4 m 78 trench(es)
GEOLOGY: Toodoggone volcanics of Lower Jurassic age include subaerial to shallow water tuffs, flows, reworked volcaniclastic sediments of andesitic, dacitic and latitic composition, and epithermal alteration zones containing clays and quartz. Gold-silver mineralization is present in several different structural settings, but mainly in a shallow-dipping low angle fault.
MINFILE: 094E 065

Joanna A.R. 17267 REPORT YEAR: 1988, 31 Pages, 1 Map(s)

OPERATOR(S): **Marian Min.**
AUTHOR(S): Woods, D.V.
MINING DIV: Omineca
LOCATION: NTS 094E06E LAT. 57 28 23 LONG. 127 05 36
CLAIM(S): Joanna I-II
WORK DONE: MAGA 110.0 km - 1 Map(s); 1:10 000
GEOLOGY: The east half of the property is underlain by north-northwest striking Lower Jurassic Hazelton Group volcanic flows and pyroclastics south of the Gordonia Gulch fault and Upper Triassic Takla Group mafic volcanics to the north. The west half of the property is covered by glacial valley sediments and overburden except for the extreme western boundary where Middle Jurassic Toodoggone volcanics crop out.
RELATED A.R.: 02506, 15067, 15070, 15818
MINFILE: 094E 036

Kad A.R. 17453 REPORT YEAR: 1988, 17 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): Burns, P.J.
MINING DIV: Omineca
LOCATION: NTS 094E06E LAT. 57 23 51 LONG. 127 11 39
CLAIM(S): Kad 2,Carolina
WORK DONE: GEOL 375.0 ha
SOIL 30 sample(s);ME
GEOLOGY: The claim area is reportedly underlain by the Middle Jurassic Tuff Peak formation of the Toodoggone volcanics.

Lawyers A.R. 17414 REPORT YEAR: 1988, 37 Pages, 2 Map(s)

OPERATOR(S): **Cheni Gold Mines**
AUTHOR(S): Tegart, P.
MINING DIV: Omineca
LOCATION: NTS 094E06E LAT. 57 20 00 LONG. 127 13 00
CLAIM(S): Lawyers 3
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 516.9 m 2 hole(s);BQ - 2 Map(s);
GEOLOGY: A northwest trending, west dipping, 1.5 kilometre long quartz chalcedony breccia zone contains gold and silver values. The deposit is hosted by the Toodoggone volcanic series.
MINFILE: 094E 067

Mac A.R. 17532 REPORT YEAR: 1988, 29 Pages, 2 Map(s)

OPERATOR(S): **Toodoggone Synd.**
AUTHOR(S): Woods, D.V.
MINING DIV: Omineca
LOCATION: NTS 094E06E LAT. 57 25 00 LONG. 127 03 00
CLAIM(S): Mac III,Hyfly I-II
WORK DONE: MAGA 150.0 km - 2 Map(s); 1:10 000
GEOLOGY: The area is underlain by Toodoggone volcanics of Lower to Middle Jurassic age consisting of green to grey quartzose, pyroxene(?), biotite, hornblende plagioclase porphyry flows and tuffs. These rocks have been intruded by granodiorite and quartz diorite stocks of Lower to Middle Jurassic age.
RELATED A.R.: 14731, 15809

Round Mountain A.R. 17299 REPORT YEAR: 1987, 319 Pages, 46 Map(s)

OPERATOR(S): **Cyprus Metals**
AUTHOR(S): Tompson, W.D.
MINING DIV: Omineca
LOCATION: NTS 094E06E, 094E06W LAT. 57 22 09 LONG. 127 14 45
CLAIM(S): Round Mountain,R.M. Fr.
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 1018.2 m 11 hole(s) - 17 Map(s); 1:200,1:1000
EMGR 50.1 km;VLF - 6 Map(s); 1:2500
GEOL 400.0 ha - 2 Map(s); 1:2000,1:1000
IPOL 10.0 km - 5 Map(s); 1:2500,1:1000
LINE 54.1 km
ROCK 124 sample(s);AU,AG - 1 Map(s); 1:200
SAMP 289 sample(s);AU,AG
SOIL 1630 sample(s);AU,AG - 11 Map(s); 1:5000,1:1000
TREN 123.0 m 8 trench(es) - 4 Map(s); 1:200
GEOLOGY: The east side of the claim area is underlain by argillized volcanic rocks which were originally porphyritic trachy-andesite. The west side of the claim is underlain by greenish andesite porphyry which is locally brecciated and contains quartz stockworks.
MINFILE: 094E 086

Silver Pond A.R. 16952 REPORT YEAR: 1987, 389 Pages, 5 Map(s)

OPERATOR(S):	**Nexus Res.**
AUTHOR(S):	Kennedy, D.R. Vogt, A.
MINING DIV:	Omineca
LOCATION:	NTS 094E06E, 094E06W LAT. 57 19 01 LONG. 127 12 59
CLAIM(S):	Silver Cloud 1-3,Silver Pond Fr.,Asap,Silver Sun,Silver Peak Fr.,Silver Grizzly Fr.,Silver Pond Silver Creek,Silver Marten
EXPL. TARGET:	Gold,Silver
WORK DONE:	DIAD 12936.0 m 98 hole(s);NQ - 89 Map(s); 1:500,1:1000 GEOL 4050.0 ha - 1 Map(s); 1:10 000 IPOL 19.3 km - 5 Map(s); 1:1250,1:2500 LINE 100.0 km - 1 Map(s); 1:10 000 MAGG 10.0 km - 1 Map(s); 1:1000 RECL 1.0 ha REST 10.0 km - 3 Map(s); 1:1000 ROCK 485 sample(s);AU,AG - 2 Map(s); 1:5000 SAMP 5893 sample(s);AU,AG SOIL 66 sample(s);AU,AG TREN 3000.0 m 30 trench(es) - 3 Map(s); 1:2500,1:500,1:1000
GEOLOGY:	The property is underlain by Middle Jurassic Toodoggone volcanics. The gently northwest dipping volcanic rocks are crosscut by subvertical rhyolitic dykes. Epithermal gold-silver mineralization and associated hydrothermal alteration is structurally controlled by a system of northwest to north-northwest trending, steeply dipping faults.
RELATED A.R.:	08300, 10047, 14700
MINFILE:	094E 069, 094E 075

Al A.R. 17655 REPORT YEAR: 1988, 239 Pages, 46 Map(s)

OPERATOR(S):	**Energex Min.**
AUTHOR(S):	Eccles, L. Sivertz, G.W.
MINING DIV:	Liard
LOCATION:	NTS 094E06W LAT. 57 28 44 LONG. 127 22 12
CLAIM(S):	Al 2,Al 4
EXPL. TARGET:	Gold,Silver
WORK DONE:	DIAD 3502.8 m 31 hole(s);HQ - 46 Map(s); 1:500,1:200 SAMP 750 sample(s);AU,AG
GEOLOGY:	Toodoggone volcanics of Middle Jurassic age including andesite flows and tuff host epithermal alteration zones containing quartz-barite-gold-silver mineralization. Alteration zones are tabular to vein-like and comprise a central silicified core enveloped by intensely argillized rock. Most alteration zones are steeply dipping and are controlled by northwest to northeast trending fault systems.
RELATED A.R.:	10709, 13198, 13454, 14638, 15735, 16057
MINFILE:	094E 078, 094E 079

Al A.R. 17257 REPORT YEAR: 1988, 31 Pages, 2 Map(s)

OPERATOR(S):	**Energex Min.**
AUTHOR(S):	Eccles, L.
MINING DIV:	Omineca
LOCATION:	NTS 094E06W LAT. 57 28 22 LONG. 127 16 28
CLAIM(S):	Surprise,Gerome,Tinkle Fr.,Chute
EXPL. TARGET:	Gold,Silver
WORK DONE:	SOIL 161 sample(s);CU,PB,ZN,AU,AG - 2 Map(s); 1:2000 TOPO 1400.0 ha
GEOLOGY:	Southwesterly dipping andesitic flows and volcaniclastics of the Early Jurassic Tuff Peak formation of the Toodoggone volcanics are altered over a large, roughly circular area. Epidote-bearing propylitic alteration predominates. Two auriferous potassic alteration zones occur within chloritic alteration along the southern boundary of the propylitic alteration. The larger is exposed for 300 metres with widths up to 25 metres.
RELATED A.R.:	15183, 15779

Discovery A.R. 17019 REPORT YEAR: 1987, 41 Pages, 1 Map(s)

OPERATOR(S):	**Duke Min.**
AUTHOR(S):	Peters, L.J. Price, B.J.
MINING DIV:	Liard
LOCATION:	NTS 094E06W LAT. 57 27 00 LONG. 127 23 00
CLAIM(S):	Discovery 1
EXPL. TARGET:	Gold
WORK DONE:	DIAD 430.1 m 7 hole(s); BQ - 1 Map(s); 1:5000 ROCK 30 sample(s);ME
GEOLOGY:	The claims are covered by glacial till up to 30 metres deep. Adjacent geology and drilling results indicate that the property is underlain by volcanics of the Toodoggone Group.

Golden Stranger A.R. 17000 REPORT YEAR: 1988, 92 Pages, 1 Map(s)

OPERATOR(S):	**Redfern Res. Rule Res. Sutton Res.**
AUTHOR(S):	Gower, S.C.
MINING DIV:	Omineca
LOCATION:	NTS 094E06W LAT. 57 22 30 LONG. 127 22 00
CLAIM(S):	Golden Stranger,Golden Stranger II
EXPL. TARGET:	Gold,Silver
WORK DONE:	DIAD 1863.0 m 18 hole(s); BQ - 1 Map(s); 1:1000 SAMP 664 sample(s);AU,AG
GEOLOGY:	Gold and silver mineralization occurs along a quartz breccia system and a northwest trending silicious fault splay traversing Toodoggone feldspar porphyry, lithic tuffs and bodies of aplitic intrusives.
RELATED A.R.:	11793, 13927, 15633
MINFILE:	094E 076

Mets A.R. 16692 REPORT YEAR: 1987

OPERATOR(S):	**Manson Creek Res.**
AUTHOR(S):	Evans, B.T.
MINING DIV:	Liard
LOCATION:	NTS 094E06W LAT. 57 26 27 LONG. 127 20 04
CLAIM(S):	Mets 1-2
WORK DONE:	DIAD 6058.5 m 41 hole(s);NQ PETR 36 sample(s) ROCK 241 sample(s);AU,AG SAMP 1765 sample(s);AU,AG TREN 719.9 m 30 trench(es)
GEOLOGY:	The claims are underlain by Middle Jurassic Toodoggone volcanics. A quartz-barite breccia is the host for gold mineralization within the "A" zone.
RELATED A.R.:	09241, 10348, 12491, 14498

New Law A.R. 17288 REPORT YEAR: 1987, 67 Pages, 5 Map(s)

OPERATOR(S): **Marian Min.**
AUTHOR(S): Hermary, R.G. Cooke, D.L. White, G.E.
MINING DIV: Omineca
LOCATION: NTS 094E06W LAT. 57 21 11 LONG. 127 18 08
CLAIM(S): New Law 2-3
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 400.0 ha - 1 Map(s); 1:5000
MAGA 57.0 km - 1 Map(s); 1:10 000
MAGG 23.0 km - 1 Map(s); 1:5000
ROCK 15 sample(s);ME
SILT 22 sample(s);ME
SOIL 255 sample(s);ME - 2 Map(s); 1:5000
GEOLOGY: The claims are underlain by Middle Jurassic Toodoggone volcanics consisting of plagioclase porphyry flows, plagioclase crystal tuff and lapilli tuff and breccia. Numerous north trending faults occur. Associated alteration includes silicification, sericitization and pyritization.

Scott A.R. 17456 REPORT YEAR: 1988, 23 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): Burns, P.J.
MINING DIV: Omineca
LOCATION: NTS 094E06W LAT. 57 19 55 LONG. 127 18 43
CLAIM(S): Scott 5-6
WORK DONE: GEOL 1000.0 ha
ROCK 15 sample(s);ME
SILT 49 sample(s);ME
SOIL 85 sample(s);ME
GEOLOGY: The claims are underlain by Middle Jurassic Toodoggone volcanics of andesitic composition and some Upper Cretaceous Sustut Group sediments.

Anna A.R. 16803 REPORT YEAR: 1987, 30 Pages, 3 Map(s)

OPERATOR(S): **Beachview Res.**
AUTHOR(S): Seywerd, J. Bekdache, M.
MINING DIV: Omineca
LOCATION: NTS 094E07W LAT. 57 16 53 LONG. 126 54 50
CLAIM(S): Anna,Michel
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: PROS 10.0 ha - 1 Map(s); 1:50 000
ROCK 30 sample(s);AG,AU,PB,ZN,CU
SOIL 93 sample(s);AG,AU,PB,ZN,CU - 2 Map(s); 1:5000
GEOLOGY: The claims are underlain by two volcanic sequences in contact along Jock Creek which have been uplifted by two relatively small blocks of Omineca Intrusions. Gossan covers the northern half of the property.

Argus A.R. 17061 REPORT YEAR: 1987, 55 Pages, 4 Map(s)

OPERATOR(S): **Barytex Res.**
AUTHOR(S): Seywerd, J. Bekdache, M.
MINING DIV: Omineca
LOCATION: NTS 094E07W LAT. 57 20 00 LONG. 126 58 00
CLAIM(S): Ian,Otto,Adrian,Paul,Argus 1-2
EXPL. TARGET: Copper,Gold,Silver,Lead,Zinc
WORK DONE: GEOL 20.5 ha
IPOL 7.2 km - 4 Map(s); 1:2500
ROCK 94 sample(s);CU,PB,ZN,AG,AU
SOIL 67 sample(s);CU,PB,ZN,AG,AU
GEOLOGY: The claims are underlain by Middle Jurassic Toodoggone volcanics and the Lower Jurassic Hazelton Group in fault-contact in the center of the property. A monzonite intrusive is also present.
RELATED A.R.: 09001, 10294, 16043
MINFILE: 094E 028, 094E 029

Daniel A.R. 16798 REPORT YEAR: 1987, 23 Pages, 3 Map(s)

OPERATOR(S): **Toodoggone Gold**
AUTHOR(S): Seywerd, J. Bekdache, M.
MINING DIV: Omineca
LOCATION: NTS 094E07W LAT. 57 20 00 LONG. 126 54 00
CLAIM(S): Daniel,Jeremy,Eloise
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: PROS 12.0 ha - 1 Map(s); 1:50 000
ROCK 14 sample(s);AG,AU,PB,ZN,CU
SOIL 121 sample(s);AG,AU,PB,AN,CU - 2 Map(s); 1:5000
GEOLOGY: The claims are underlain by undivided Middle Jurassic Toodoggone volcanics which have been folded and faulted by an intrusive present on the western part of the claims. Pyroclastic formations, dyke swarms and gossans also occur on the property.
RELATED A.R.: 15269
MINFILE: 094E 083

Esta A.R. 17455 REPORT YEAR: 1988, 21 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): Burns, P.J.
MINING DIV: Omineca
LOCATION: NTS 094E07W LAT. 57 24 04 LONG. 126 56 33
CLAIM(S): Esta 1-2
WORK DONE: GEOL 775.0 ha
ROCK 6 sample(s);ME
SOIL 101 sample(s);ME
GEOLOGY: Middle Jurassic Toodoggone volcanics are intruded by a Lower to Middle Jurassic granodiorite porphyry stock and several similar dykes.

Graves A.R. 17326 REPORT YEAR: 1988, 79 Pages, 1 Map(s)

OPERATOR(S): **Blue Emerald**
AUTHOR(S): Lyman, D.A.
MINING DIV: Omineca
LOCATION: NTS 094E07W LAT. 57 22 40 LONG. 126 58 19
CLAIM(S): Graves 1-2
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: GEOL 500.0 ha - 1 Map(s); 1:5000,1:1250
ROCK 57 sample(s);ME
SILT 10 sample(s);ME
SOIL 116 sample(s);ME
GEOLOGY: The claims are underlain by Lower Jurassic Hazelton Group volcanic and volcaniclastic rocks, including welded andesite and pumice lapilli breccia, andesite flows and minor intrusives.

Propylitic alteration is pervasive. Mineralization, found in two zones (GWP and Yellow Rose), includes gold, silver, lead and zinc and is associated with fault-related quartz veining.

RELATED A.R.: 10050, 13458, 14824
MINFILE: 094E 087

Gravy A.R. 17226 REPORT YEAR: 1987, 75 Pages, 4 Map(s)

OPERATOR(S): **Mt. Graves Res.**
AUTHOR(S): Cook, D.L. Woods, D.V. Hermary, R.G.
MINING DIV: Omineca
LOCATION: NTS 094E07W LAT. 57 22 53 LONG. 126 57 02
CLAIM(S): Gravy II,Gravy IV
EXPL. TARGET: Gold
WORK DONE: GEOL 600.0 ha - 1 Map(s); 1:5000
MAGA 160.0 km - 1 Map(s); 1:10 000
ROCK 41 sample(s);ME
SOIL 118 sample(s);ME - 2 Map(s); 1:5000

GEOLOGY: The claims are underlain by andesitic flows and pyroclastics belonging to the Middle Jurassic Toodoggone volcanics. These rocks are intruded by feldspar porphyry dykes and sills. Gossanous areas contain quartz veins with associated silicification and brecciation. Metallic minerals include pyrite, sphalerite, chalcopyrite and galena. A major controlling fault trends northwest.

MINFILE: 094E

Lee A.R. 16804 REPORT YEAR: 1987, 30 Pages, 3 Map(s)

OPERATOR(S): **Beachview Res.**
AUTHOR(S): Seywerd, J. Bekdache, M.
MINING DIV: Omineca
LOCATION: NTS 094E07W LAT. 57 18 18 LONG. 126 57 56
CLAIM(S): Brooke,Lee,Erin
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: PROS 14.5 ha - 1 Map(s); 1:50 000
ROCK 43 sample(s);AU,AG,CU,PB,ZN
SOIL 126 sample(s);AU,AG,CU,PB,ZN - 2 Map(s); 1:5000

GEOLOGY: The property is underlain by a sequence of volcanic rocks intruded by a monzonite intrusive of Lower-Middle Jurassic age.

Pil A.R. 17451 REPORT YEAR: 1988, 21 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): Burns, P.J.
MINING DIV: Omineca
LOCATION: NTS 094E07W LAT. 57 17 40 LONG. 126 51 48
CLAIM(S): Pil,Lar
WORK DONE: GEOL 675.0 ha
ROCK 19 sample(s);ME
SOIL 52 sample(s);ME

GEOLOGY: The claims are underlain by andesitic flows and tuffs of reported Middle Jurassic Toodoggone volcanics. Thin quartz-limonite veins and gossans were sampled.

MINFILE: 094E 042

Shasta A.R. 16698 REPORT YEAR: 1987

OPERATOR(S): **Esso Min. Can.**
AUTHOR(S): Holbeck, P. Thiersch, P.
MINING DIV: Omineca
LOCATION: NTS 094E07W LAT. 57 15 32 LONG. 126 59 04
CLAIM(S): Shasta 2
WORK DONE: DIAD 2369.0 m 24 hole(s);BQ
SAMP 1141 sample(s);AU,AG

GEOLOGY: The property area is underlain by volcanic and volcaniclastic rocks of the Middle Jurassic Toodoggone volcanics and possibly Lower Jurassic Hazelton Group. Mineralization is hosted by structurally controlled quartz-calcite stockwork and breccia zones within large areas of weakly veined and hydrothermally altered rock.

RELATED A.R.: 04570, 05187, 05559, 07011, 08071, 08781, 09886, 11547, 11715, 16241

Ursus A.R. 17509 REPORT YEAR: 1988, 26 Pages, 2 Map(s)

OPERATOR(S): **Beachview Res.**
AUTHOR(S): Woods, D.V.
MINING DIV: Liard
LOCATION: NTS 094E11E LAT. 57 34 00 LONG. 127 05 00
CLAIM(S): Ursus I-III
WORK DONE: MAGA 160.0 km - 2 Map(s); 1:10 000

GEOLOGY: Undivided Toodoggone volcanics of Lower and Middle Jurassic age consisting of grey, green, purple and orange-brown hornblende plagioclase and plagioclase andesite porphyry flows, tuffs, breccias. These rocks have been intruded by granodiorite and quartz diorite stocks and dykes of Lower to Middle Jurassic age.

RELATED A.R.: 16055

Adoog A.R. 17250 REPORT YEAR: 1988, 27 Pages, 1 Map(s)

OPERATOR(S): **Delaware Res.**
AUTHOR(S): Beattie, B.C.
MINING DIV: Liard
LOCATION: NTS 094E11W, 094E12E LAT. 57 31 33 LONG. 127 30 00
CLAIM(S): Adoog 1-5
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 2700.0 ha - 1 Map(s); 1:10 000
ROCK 36 sample(s);AU,AG

GEOLOGY: The Adoog 1 claim is underlain by the Upper Triassic Takla Group comprising augite porphyry basalt flows/breccias and minor siltstones and cherts. Unit 1 of the Adoogatcho Creek Formation covers the rest of the claims and comprises quartzose biotite-hornblende phyric ash flows. Silt and rock geochemistry indicate some areas of elevated gold values although no mineralization has been located.

Expeditor A.R. 17218 REPORT YEAR: 1988, 71 Pages, 14 Map(s)

OPERATOR(S): **Expeditor Res. Group**
AUTHOR(S): Adamec, J.D.
MINING DIV: Liard
LOCATION: NTS 094E11W LAT. 57 35 27 LONG. 127 18 51
CLAIM(S): Dall,Chris 1-4,King 1-2,Yeti,Claw,Cal 1
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 17.9 km;VLF - 4 Map(s); 1:2500,1:1000
GEOL 2025.0 ha - 3 Map(s); 1:10 000,1:2500,1:1000
MAGG 17.9 km - 2 Map(s); 1:2500,1:1000
ROCK 97 sample(s);AU,AG,PB,ZN,CU,AS,SB
SILT 11 sample(s);AU,AG,PB,ZN,CU,AS,SB
SOIL 517 sample(s);AU,AG,PB,ZN,CU,AS,SB - 5 Map(s); 1:2500,1:1000

GEOLOGY: Middle Jurassic Toodoggone volcanics consisting predominantly of dacite, latite and rhyolite pyroclastics, unconformably overlie augite porphyry basalt flows and breccias of the Upper Triassic Takla Group. Sulphides found in andesitic dykes and porphyries include: chalcocite, chalcopyrite, hematite and lesser amounts of pyrite or tetrahedrite.
MINFILE: 094E

Golden Lion A.R. 18168 REPORT YEAR: 1988, 45 Pages, 9 Map(s)

OPERATOR(S): **Newmont Ex. of Can.**
AUTHOR(S): Turner, J.A.
MINING DIV: Liard
LOCATION: NTS 094E11W LAT. 57 34 00 LONG. 127 20 00
CLAIM(S): Golden Lion 3-4
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 150.0 ha - 2 Map(s); 1:2500,1:5000
ROCK 29 sample(s);AU,ME
SILT 2 sample(s);AU,ME
SOIL 297 sample(s);AU,ME - 7 Map(s); 1:2500
GEOLOGY: The claims are underlain by a northwest striking sequence of Jurassic Toodoggone volcanics and subvolcanic intrusives. The volcanics consist of basalt to dacite porphyry flows and pyroclastics. The intrusives are rhyodacite to syenite porphyries. Silicification and alunitization occur along north-south trending faults.
MINFILE: 094E 077

Adoog A.R. 17251 REPORT YEAR: 1988, 19 Pages, 1 Map(s)

OPERATOR(S): **Delaware Res.**
AUTHOR(S): Beattie, B.C.
MINING DIV: Liard
LOCATION: NTS 094E12E LAT. 57 32 50 LONG. 127 32 34
CLAIM(S): Adoog 8-9
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 75.0 ha - 1 Map(s); 1:10 000
GEOLOGY: The claims are underlain by Middle Jurassic Toodoggone volcanics. A unit of the Adoogatcho Creek formation, comprised of ash flow sheets with intercalated crystal-lithic tuffs, underlies Adoog 9 and most of Adoog 8 claims. A unit of the Moyez Creek volcaniclastics underlies the western portion of the Adoog 8 claim and is comprised of an assemblage of interbedded air-fall tuff, thin ash flow sheets and epiclastic and chemical rocks.
RELATED A.R.: 14464

Adoog A.R. 17244 REPORT YEAR: 1988, 20 Pages, 1 Map(s)

OPERATOR(S): **Delaware Res.**
AUTHOR(S): Beattie, B.C.
MINING DIV: Liard
LOCATION: NTS 094E12E LAT. 57 30 39 LONG. 127 32 42
CLAIM(S): Adoog 7
EXPL. TARGET: Gold
WORK DONE: PROS 500.0 ha - 1 Map(s); 1:10 000
GEOLOGY: The claim is underlain by Middle Jurassic Toodoggone volcanics. Units from the Adoogatcho Creek, Moyez Creek, and Tuff Peak formations are exposed on the property. Silt and rock geochemistry indicate possible areas of gold mineralization.
RELATED A.R.: 15619

Fred A.R. 17247 REPORT YEAR: 1988, 19 Pages, 1 Map(s)

OPERATOR(S): **Prolific Res.**
AUTHOR(S): Beattie, B.C.
MINING DIV: Liard
LOCATION: NTS 094E12E LAT. 57 38 21 LONG. 127 31 44
CLAIM(S): Fred 1
EXPL. TARGET: Gold
WORK DONE: PROS 500.0 ha - 1 Map(s); 1:10 000
GEOLOGY: The south and east portion of the claim is underlain by the Upper Triassic Takla Group consisting of dark green augite porphyry basalt and breccia and minor andesite. The remainder of the property is underlain by polymictic conglomerates of the Upper Cretaceous Tango Creek Formation. Two northeasterly faults trend across the claim. Exploration targets are epithermal gold-silver mineralization. One such site has been delineated through prospecting and can be followed for 20 metres.
MINFILE: 094E

Stik A.R. 17249 REPORT YEAR: 1988, 19 Pages, 1 Map(s)

OPERATOR(S): **Prolific Res.**
AUTHOR(S): Beattie, B.C.
MINING DIV: Liard
LOCATION: NTS 094E12E LAT. 57 37 26 LONG. 127 35 41
CLAIM(S): Stik 5
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 500.0 ha - 1 Map(s); 1:10 000
GEOLOGY: The claim is underlain by Middle Jurassic Toodoggone volcanics. A unit of the Adoogatcho Creek formation, comprised of numerous ash flow sheets is intercalated with crystal-lithic tuffs and sediments of the Upper Cretaceous Tango Creek Formation (Sustut Group). Silt and rock geochemistry indicate some areas of elevated gold-silver values.

Stik A.R. 17237 REPORT YEAR: 1988, 25 Pages, 2 Map(s)

OPERATOR(S): **Delaware Res.**
AUTHOR(S): Beattie, B.C.
MINING DIV: Liard
LOCATION: NTS 094E12E LAT. 57 36 33 LONG. 127 30 42
CLAIM(S): Stik 1-4
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 250.0 ha - 2 Map(s); 1:10 000
ROCK 10 sample(s);AU,AG
GEOLOGY: The claims are underlain by three members of the Middle Jurassic Toodoggone volcanics and by the Upper Cretaceous Tango Creek Formation (Sustut Group) intruded in one area by a small plug of Middle Jurassic gabbro. Faulting is common and complex and associated with the faulting are a number of quartz vein and alteration zones. The "B" zone (Stik 1) is a quartz-barite zone traceable for 400 metres.

TOODOGGONE RIVER 094E

Chuc A.R. 17322 REPORT YEAR: 1988, 30 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): McAtee, C.L. Burns, P.J.
MINING DIV: Liard
LOCATION: NTS 094E13W LAT. 57 48 30 LONG. 127 46 20
CLAIM(S): Chuc 3
WORK DONE: EMGR 2.1 km;VLF
ROCK 21 sample(s);ME
SOIL 191 sample(s);ME
GEOLOGY: Granitic rocks of Lower Jurassic age intrude Upper Paleozoic-Lower Mesozoic volcanic rocks (Asitka Group, Takla Group(?)).

TRUTCH 094G

Cay A.R. 16851 REPORT YEAR: 1988, 114 Pages, 13 Map(s)

OPERATOR(S): **Equinox Res.**
AUTHOR(S): Leighton, D.G. Pell, J.
MINING DIV: Liard
LOCATION: NTS 094G12W LAT. 57 43 25 LONG. 123 56 18
CLAIM(S): Cay 1-7
EXPL. TARGET: Lead,Zinc,Gallium,Germanium,Barium/Barite
WORK DONE: DIAD 1078.0 m 21 hole(s);BQ - 5 Map(s); 1:200
GEOL 9000.0 ha - 2 Map(s); 1:5000
LINE 60.0 km
MNGR 3 sample(s)
PETR 3 sample(s)
SAMP 72 sample(s);PB,ZN,GA,GE
SOIL 851 sample(s);CU,PB,ZN,BA,AG,AS,SB,AU - 4 Map(s); 1:5000
TOPO 9000.0 ha - 2 Map(s); 1:5000
TREN 30.0 m 2 trench(es)
GEOLOGY: Lead-zinc showings occur in large barite pods at or near the contact of Middle Devonian Dunedin Formation limestone with Besa River Formation shales and Stone Formation limestone. Mineralization occurs on both limbs of a tightly folded anticline.
RELATED A.R.: 04201, 16619, 16722
MINFILE: 094G 017

Cay A.R. 16722 REPORT YEAR: 1987

OPERATOR(S): **Equinox Res.**
AUTHOR(S): Leighton, D.G. Mehner, D.T.
MINING DIV: Liard
LOCATION: NTS 094G12W LAT. 57 42 35 LONG. 123 54 55
CLAIM(S): Cay 1,Cay 4-6
WORK DONE: DIAD 1078.0 m 21 hole(s);BQ
GEOL 1000.0 ha
META 3 sample(s);Bulk
PETR 3 sample(s)
ROCK 18 sample(s);PB,ZN,GA,GE,IN
SAMP 72 sample(s);PB,ZN,GA,GE
SOIL 851 sample(s);CU,PB,ZN,BA
GEOLOGY: The property is underlain by a well bedded sequence of strata which includes limestones, dolomite, shales, sandstone, cherty limestone and thick bedded black chert. These rocks range between Silurian and Triassic in age. Showings consist of numerous zinc-lead occurrences found at or near the contact of Middle Devonian Dunedin Formation limestone with Bes River Formation shales and stone formation limestone. Mineralization occurs on both limbs of a tightly folded anticline.
RELATED A.R.: 04201, 16619

KECHIKA 094L

West A.R. 16898 REPORT YEAR: 1987, 19 Pages

OPERATOR(S): **Skylark Res.**
AUTHOR(S): Burns, P.J. McAtee, C.L.
MINING DIV: Liard
LOCATION: NTS 094L03E LAT. 58 11 52 LONG. 127 09 19
CLAIM(S): West 1
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: EMGR 1.2 km;VLF
GEOL 10.0 ha
LINE 1.9 km
ROCK 11 sample(s);ME
GEOLOGY: The claim is underlain by Ingenika Group folded and faulted clastics and carbonates with silver-lead-zinc mineralized float.
MINFILE: 094L 001

MORESBY ISLAND 103B

Archie A.R. 17507 REPORT YEAR: 1988

OPERATOR(S): **Christie, J.S.**
AUTHOR(S): Price, B.J.
MINING DIV: Skeena
LOCATION: NTS 103B06E LAT. 52 18 00 LONG. 131 11 00
CLAIM(S): Archie 1-4
WORK DONE: EMGR 0.5 km;VLF
ROCK 18 sample(s);ME
SOIL 63 sample(s);ME
GEOLOGY: Massive sulphides occur as replacements along dyke margins cutting Upper Triassic Kunga Formation sediments. Additional potential exists for copper-iron-gold skarn.
RELATED A.R.: 08197, 08714, 10198, 16225
MINFILE: 103B 024

Eagle A.R. 17719 REPORT YEAR: 1988, 80 Pages, 11 Map(s)

OPERATOR(S): **Diamond Res.**
AUTHOR(S): Seyward, M. Poloni, J.R.
MINING DIV: Skeena
LOCATION: NTS 103B12W LAT. 52 42 18 LONG. 131 49 30
CLAIM(S): Eagle,Eagle 2-3
EXPL. TARGET: Copper,Gold,Silver
WORK DONE: DIAD 261.5 m 3 hole(s);BQ
EMGR 10.0 km;VLF - 2 Map(s); 1:2500
IPOL 10.0 km - 4 Map(s); 1:2500
MAGG 10.0 km - 2 Map(s); 1:2500
SAMP 91 sample(s);CU,AG,AU
SOIL 163 sample(s);AU,AG,CU - 3 Map(s); 1:2500
GEOLOGY: The claims cover Upper Triassic Karmutsen Formation pillow basalt, diabase, breccia, tuff and limestone. Copper mineralization consisting of chalcopyrite, bornite and malachite occurs as films, pods and disseminations.
RELATED A.R.: 11603
MINFILE: 103B 003

Lockeport A.R. 17097 REPORT YEAR: 1987, 39 Pages, 5 Map(s)

OPERATOR(S): **New Global Res.**
AUTHOR(S): Shearer, J.T.
MINING DIV: Skeena
LOCATION: NTS 103B12W LAT. 52 43 00 LONG. 131 53 00
CLAIM(S): Lockeport 1-4
EXPL. TARGET: Gold,Platinum,Palladium
WORK DONE: GEOL 100.0 ha - 2 Map(s); 1:2500
ROCK 82 sample(s);AU,PT,PD - 2 Map(s); 1:2500
SOIL 71 sample(s);AU,PT,PD - 1 Map(s); 1:5000
GEOLOGY: Triassic to Jurassic Kunga Formation sediments are in fault contact with Triassic Karmutsen Formation basalt. Six gold showings have been outlined in silicified zones containing pyrite-arsenopyrite mineralization adjacent to or within dacite to rhyolite dykes. Grab samples assayed up to 23.4 grams of gold per tonne and chip samples as high as 8.3 grams of gold per tonne over 1.5 metres. An arsenic-gold soil anomaly 2 kilometres by 400 metres large includes four soil samples anomalous in platinum and palladium.
MINFILE: 103B 066

GRAHAM ISLAND 103F

Black Bat A.R. 17956 REPORT YEAR: 1988, 21 Pages, 1 Map(s)

OPERATOR(S): **Noramex Min.** **Umex**
AUTHOR(S): Fairbank, B.D. Faulkner, R.L.
MINING DIV: Skeena
LOCATION: NTS 103F08E LAT. 53 27 20 LONG. 132 05 00
CLAIM(S): Bat 1-7,Lac,Marco
EXPL. TARGET: Gold
WORK DONE: MAGG 16.1 km - 1 Map(s); 1:10 000
GEOLOGY: The property is believed to be underlain by Haida and Skonun Formation sediments under extensive overburden cover. A pronounced fault scarp in the bedrock crosses the southwest corner of the property.
RELATED A.R.: 10998, 16599

Nov A.R. 18110 REPORT YEAR: 1988, 43 Pages, 3 Map(s)

OPERATOR(S): **Noramex Min.**
AUTHOR(S): Hepp, M.A.
MINING DIV: Skeena
LOCATION: NTS 103F08E LAT. 53 28 00 LONG. 132 14 00
CLAIM(S): Nov,Nov 2
WORK DONE: GEOL 725.0 ha - 1 Map(s); 1:10 000
HMIN 3 sample(s);ME
MAGG 8.8 km - 1 Map(s); 1:10 000
ROCK 6 sample(s);ME
SOIL 51 sample(s);ME - 1 Map(s); 1:10 000
GEOLOGY: The property is underlain by Jurassic Yakoun Formation volcanics, Cretaceous Longarm Formation sediments, a pre-Oligocene andesite and unconsolidated sands and gravels.

Crcl A.R. 17286 REPORT YEAR: 1988, 33 Pages, 1 Map(s)

OPERATOR(S): **City Res.**
AUTHOR(S): Borschneck, T.M. Twyman, M.P. Dunn, D.St.C.
MINING DIV: Skeena
LOCATION: NTS 103F08W LAT. 53 28 55 LONG. 132 19 09
CLAIM(S): Crcl 8,Crcl 12
WORK DONE: GEOL 300.0 ha - 1 Map(s); 1:5000
HMIN 7 sample(s);ME
ROCK 6 sample(s);AU,AG,HG,AS,SB,CU,PB,ZN
SILT 10 sample(s);AU,AG,HG,AS,SB,CU,PB,ZN
SOIL 3 sample(s);AU,AG,HG,AS,SB,CU,PB,ZN
GEOLOGY: Vuggy brecciated quartz-pyrite veins occur in aphanitic to porphyritic andesitic basalts and rhyolite tuffs of the Tertiary Masset Formation.

Golden Dyke Joint Venture A.R. 17914 REPORT YEAR: 1988, 24 Pages, 1 Map(s)

OPERATOR(S): **Noramex Min.** **Noranda Ex.** **Umex**
AUTHOR(S): Fairbank, B.D. Faulkner, R.L.
MINING DIV: Skeena

LOCATION: NTS 103F08W LAT. 53 21 35 LONG. 132 22 50
CLAIM(S): Stib,Shield 1-2,Shield 4
EXPL. TARGET: Antimony,Arsenic,Gold,Copper
WORK DONE: LINE 1.8 km
SILT 5 sample(s);AG,AS,CU,PB,SB,ZN,AU,HG
SOIL 76 sample(s);CU,AS,SB,AU - 1 Map(s); 1:2500
GEOLOGY: The property covers a northwest trending steeply dipping alteration zone within Jurasic Yakoun Formation volcanoclastics. Feldspar porphyry dykes seen within the Yakoun may be Tertiary Masset Formation rocks. Rock alteration is principally clay-sericite-limonite with minor quartz veining. Mineralization, which is generally associated with quartz veining and/or clay alteration consists of gold, stibnite, arsenopyrite and pyrite.
RELATED A.R.: 06726, 09698, 15325
MINFILE: 103F 009

Bre A.R. 17015 REPORT YEAR: 1988, 69 Pages, 4 Map(s)

OPERATOR(S): **Mutual Res.**
AUTHOR(S): Holtby, M.H.
MINING DIV: Skeena
LOCATION: NTS 103F09E LAT. 53 32 30 LONG. 132 13 00
CLAIM(S): Bre 1-50,Bre 1 Fr.,Woof 1 Fr.
EXPL. TARGET: Gold
WORK DONE: LSUR 55.3 km - 2 Map(s); 1:5000
SOIL 448 sample(s);AU,AG,AS,HG - 2 Map(s); 1:2500
GEOLOGY: The property is underlain by felsic volcanics and sediments including tuff and quartz-eye rhyolite. The volcanics are sheared and kaolinized. Much of the property is overlain by thick fluvial and glacial deposits. Mineralization discovered to date consists of disseminated pyrite.
RELATED A.R.: 15647

Banjo A.R. 18151 REPORT YEAR: 1988, 39 Pages, 2 Map(s)

OPERATOR(S): **City Res.**
AUTHOR(S): Lucas, D.R.
MINING DIV: Skeena
LOCATION: NTS 103F09W LAT. 53 33 00 LONG. 132 26 00
CLAIM(S): Banjo 1-2,Banjo 5
WORK DONE: GEOL 1100.0 ha - 1 Map(s); 1:5000
ROCK 25 sample(s);ME
SILT 17 sample(s);ME
SOIL 52 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: Sequence of basic to felsic volcanics of the Tartu Inlet facies of the Tertiary Masset Formation. Volcanics generally flat-lying to gently north dipping. Zone of epithermal alteration and mineralization are centered on the Banjo 2 claim. Alteration is cut by a number of small north to northeasterly striking shears. Alteration is generally weak to intense argillic with minimal silicification.

Crcl A.R. 17283 REPORT YEAR: 1988, 24 Pages, 1 Map(s)

OPERATOR(S): **City Res.**
AUTHOR(S): Borschneck, T.M. Twyman, M.P. Dunn, D.St.C.
MINING DIV: Skeena
LOCATION: NTS 103F09W LAT. 53 39 52 LONG. 132 19 11
CLAIM(S): Crcl 9-11
WORK DONE: GEOL 1100.0 ha - 1 Map(s); 1:5000
ROCK 1 sample(s);AU,AG,HG,AS,SB,CU,PB,ZN
SILT 3 sample(s);AU,AG,HG,AS,SB,CU,PB,ZN
SOIL 10 sample(s);AU,AG,HG,AS,SB,CU,PB,ZN
GEOLOGY: Flat-lying basalts, andesites and tuffs of the Tertiary Masset Formation are overlain by Quaternary glacial sediments.

Crcl A.R. 17282 REPORT YEAR: 1988, 21 Pages, 1 Map(s)

OPERATOR(S): **City Res.**
AUTHOR(S): Borschneck, T.M. Dunn, D.St.C. Twyman, M.P.
MINING DIV: Skeena
LOCATION: NTS 103F09W LAT. 53 34 22 LONG. 132 17 23
CLAIM(S): Crcl 5
WORK DONE: GEOL 500.0 ha - 1 Map(s); 1:5000
SILT 1 sample(s);CU,PB,ZN,AG,AS,HG,SB,AU
GEOLOGY: The area is underlain by Tertiary Masset Formation basalts and glassy lapilli tuffs.

Falcon A.R. 17632 REPORT YEAR: 1988, 37 Pages, 3 Map(s)

OPERATOR(S): **Newmont Ex. of Can.**
AUTHOR(S): Turner, J.A.
MINING DIV: Skeena
LOCATION: NTS 103F09W LAT. 53 32 56 LONG. 132 27 49
CLAIM(S): Falcon 1
WORK DONE: GEOL 500.0 ha - 1 Map(s); 1:5000
SOIL 217 sample(s);ME - 2 Map(s); 1:5000
GEOLOGY: Massive flows of rhyolite, andesite and basalt of the Paleocene-Eocene Masset Formation are highly fractured and argillicly altered, with a zone of silicification and sheeted/stockwork chalcedonic veining. Some brecciation is also present. Pyrite is prevalent along fractures.

Leo A.R. 18143 REPORT YEAR: 1988, 45 Pages, 2 Map(s)

OPERATOR(S): **Noramex Min.**
AUTHOR(S): Hepp, M.A.
MINING DIV: Skeena
LOCATION: NTS 103F09W LAT. 53 35 00 LONG. 132 22 00
CLAIM(S): Leo,Lynx,Lyra
WORK DONE: GEOL 1500.0 ha - 2 Map(s); 1:5000
MAGG 25.5 km
ROCK 8 sample(s);AU,AG,CU,PB,ZN,AS,SB,HG
SOIL 57 sample(s);AU,AS
GEOLOGY: The property is underlain by Masset Formation volcanics with silicification, argillic alteration and disseminated pyrite.

Linda A.R. 17083 REPORT YEAR: 1987, 47 Pages, 9 Map(s)

OPERATOR(S): **City Res.**
AUTHOR(S): Solkoski, L. Wesa, G.L. Deighton, J.R.
MINING DIV: Skeena
LOCATION: NTS 103F09W LAT. 53 35 00 LONG. 132 23 00
CLAIM(S): Linda 1-5,Bean 1
EXPL. TARGET: Gold
WORK DONE: GEOL 1000.0 ha - 4 Map(s); 1:5000
HMIN 53 sample(s);ME
ROCK 112 sample(s);ME - 5 Map(s); 1:5000

GEOLOGY:	Flow-bonded rhyolite, rhyolite breccia and rhyolitic ash tuffs of the Masset Formation are conformably(?) overlain by a thick sequence of basaltic flows and associated flow top breccias. The whole sequence is gently dipping to the north. Gossanous-pyritic zones are found in the rhyolitic sequence along with silicification and argillic-propylitic alteration.	
MINFILE:	103F 022, 103F 024	

OB A.R. 17048 REPORT YEAR: 1987, 92 Pages, 14 Map(s)

OPERATOR(S):	**Skygold Res.**	
AUTHOR(S):	Sayer, C.J. Stephen, J.C.	
MINING DIV:	Skeena	
LOCATION:	NTS 103F09W	LAT. 53 34 21 LONG. 132 29 25
CLAIM(S):	OB 1-2	
EXPL. TARGET:	Gold	
WORK DONE:	EMGR 12.0 km;VLF - 2 Map(s); 1:2500 GEOL 900.0 ha - 2 Map(s); 1:5000,1:2500 IPOL 4.4 km - 3 Map(s); 1:2500 MAGG 8.4 km - 2 Map(s); 1:2500 ROCK 16 sample(s);ME - 3 Map(s); 1:5000 SOIL 160 sample(s);ME - 2 Map(s); 1:5000,1:2500	
GEOLOGY:	Rocks of the Tertiary Masset Formation are faulted and deformed in the area of Juskatla Inlet. Beds dip from 3-70 degrees with most between 30-70 degrees. On the west side of the inlet lithology is dominated by laminated rhyolitic tuffs. On the east side interlayered basalt and rhyolite flows exist. Throughout the property the rocks are pervasively silicified and argillized with abundant calcedonic open space fillings. Many areas are quite brecciated. Mineralization occurs as pyrite filling cracks and spaces or vugs.	

Wanda Sheila A.R. 18155 REPORT YEAR: 1988, 84 Pages, 7 Map(s)

OPERATOR(S):	**City Res.**	
AUTHOR(S):	Hepp, M.A.	
MINING DIV:	Skeena	
LOCATION:	NTS 103F09W	LAT. 53 34 00 LONG. 132 17 00
CLAIM(S):	Jet,Wonder,Sheila,Wanda	
EXPL. TARGET:	Gold	
WORK DONE:	EMGR 27.0 km;VLF - 1 Map(s); 1:5000 GEOL 800.0 ha - 1 Map(s); 1:5000 IPOL 9.8 km - 1 Map(s); 1:5000 LINE 27.0 km MAGG 40.5 km - 3 Map(s); 1:5000 ROCK 4 sample(s);AU,AS SOIL 536 sample(s);AU,AS - 1 Map(s); 1:5000	
GEOLOGY:	The claims are underlain by Masset Formation volcanic rocks with a possible alteration zone. Two anomalous exploration targets have been identified. The claims were staked to cover a projected north-western extension of the Sandspit Fault splay, which controls the mineralization of the Cinola gold deposit.	

Virgo A.R. 17053 REPORT YEAR: 1987, 58 Pages, 2 Map(s)

OPERATOR(S):	**City Res.**	
AUTHOR(S):	Deighton, J.R. Solkoski, L. Wesa, G.L.	
MINING DIV:	Skeena	
LOCATION:	NTS 103F10W, 103F11W, 103F15W	LAT. 53 44 00 LONG. 132 53 00
CLAIM(S):	Virgo 1-16	
EXPL. TARGET:	Gold	
WORK DONE:	GEOL 5000.0 ha - 1 Map(s); 1:10 000 HMIN 78 sample(s);ME ROCK 132 sample(s);ME - 1 Map(s); 1:10 000	
GEOLOGY:	The claims are underlain by a sequence of rhyolite flows and ash tuffs of the Masset Formation of Early Tertiary age. Several gossanous sulphide zones and a major northwest-southeast fault cross the property.	
MINFILE:	103F 019	

Inconspicuous A.R. 17585 REPORT YEAR: 1988, 54 Pages

OPERATOR(S):	**City Res.**	
AUTHOR(S):	Deighton, J.R. Howell, W.	
MINING DIV:	Skeena	
LOCATION:	NTS 103F14E	LAT. 53 58 40 LONG. 133 00 20
CLAIM(S):	Inconspicuous 1-4	
EXPL. TARGET:	Gold	
WORK DONE:	DIAD 439.7 m 6 hole(s);BDGM	
GEOLOGY:	Claims are underlain by Haida Formation argillites and Masset Formation porphyritic crystal tuffs of dacitic composition and intruded by a stock or stocks of diorite. Faulting is extensive throughout the area.	
RELATED A.R.:	09028, 10127, 11086, 11878, 12208	
MINFILE:	103F 043	

HECATE STRAIT 103G

More A.R. 17390 REPORT YEAR: 1988, 103 Pages, 4 Map(s)

OPERATOR(S):	**Cominco**	
AUTHOR(S):	Pauwels, A.M.	
MINING DIV:	Skeena	
LOCATION:	NTS 103G04E	LAT. 53 04 27 LONG. 131 43 23
CLAIM(S):	More,More 2,More 6	
EXPL. TARGET:	Gold	
WORK DONE:	PERD 2502.4 m 33 hole(s) - 4 Map(s); 1:25 000,1:10 000,1:1250 ROAD 10.0 km	
GEOLOGY:	The property area is underlain by Middle Jurassic Yakoun Formation basaltic to andesitic flows and breccias with minor shale and grit. Local rhyolite flows and pyroclastic rock is reported to occur on the property. Rock attitudes are unknown but postulated to strike 030 to 050 degrees dipping 80 to 35 degrees east.	
RELATED A.R.:	16127	
MINFILE:	103G 028	

More A.R. 16752 REPORT YEAR: 1987

OPERATOR(S):	**Cominco**	
AUTHOR(S):	Jackisch, I. Pauwels, A.M.	
MINING DIV:	Skeena	
LOCATION:	NTS 103G04E	LAT. 53 04 29 LONG. 131 43 29
CLAIM(S):	More,More 2-3,More 5	
WORK DONE:	EMGR 5.7 km GEOL 900.0 ha IPOL 27.4 km LINE 34.6 km	

MAGG 4.5 km

PETR 6 sample(s)

ROAD 5.0 km

SOIL 491 sample(s);AU,AS

GEOLOGY: The property area is underlain by Middle Jurassic Yakoun Formation basaltic-andesitic flows and breccias with minor shale and grit. Local rhyolite flows and pyroclastic rock is reported on the property. Rock attitudes are unknown but postulated to strike 030-050 degrees dipping 80-35 degrees east.

RELATED A.R.: 16127

Snow A.R. 17410 REPORT YEAR: 1988, 75 Pages, 13 Map(s)

OPERATOR(S): **Mondavi Res.**

AUTHOR(S): Fairbank, B.D.

MINING DIV: Skeena

LOCATION: NTS 103G04W LAT. 53 12 00 LONG. 131 47 00

CLAIM(S): Snow 1-4,Snow 6,Mar 1

EXPL. TARGET: Gold

WORK DONE: GEOL 30.0 ha - 1 Map(s); 1:2500

HMIN 34 sample(s);AU,AG,AS,SB,HG,CU,PB,ZN - 3 Map(s); 1:10 000,1:2500

IPOL 3.5 km - 2 Map(s); 1:2500

LINE 7.5 km

ROCK 141 sample(s);AU,AG,AS,SB,CU,PB,ZN,HG - 1 Map(s); 1:10 000

SOIL 312 sample(s);AU,AS - 4 Map(s); 1:10 000,1:2500

TREN 623.0 m 11 trench(es) - 2 Map(s); 1:2500

GEOLOGY: Outcrops on the property are sparse except along the Sandspit Fault escarpment, along the coastline, and in local creeks. The underlying rocks are tuffs and agglomerates of the Jurassic Yakoun Formation, and Cretaceous quartz diorite-diorite. Gold values occur in pyritic clay-sericite and quartz-carbonate veins and in very fine-grained semi-massive to massive sulphide deposits in tuffs.

RELATED A.R.: 07684, 07805, 07890, 08958, 10140, 12369, 13535, 14695

MINFILE: 103G 005, 103G 006

Miller Creek A.R. 17541 REPORT YEAR: 1988, 47 Pages, 4 Map(s)

OPERATOR(S): **Fairbank, B.D.**

AUTHOR(S): Hepp, M.A.

MINING DIV: Skeena

LOCATION: NTS 103G05W LAT. 53 19 25 LONG. 131 59 00

CLAIM(S): Sto 1-4

EXPL. TARGET: Gold,Arsenic

WORK DONE: HMIN 12 sample(s);AU,AS,SB,CU,PB,ZN,HG

LINE 10.4 km

ROCK 11 sample(s);AU,AS

SILT 23 sample(s);AU,AS,SB,CU,PB,ZN

SOIL 235 sample(s);AU,AS - 4 Map(s); 1:5000,1:10 000

GEOLOGY: The property is not know in detail because of a thin till cover and thick bush. The property is underlain by Cretaceous or Tertiary Chinukundl hornblende granodiorite with minor amounts of Skonun Formation shales and Yakoun Formation andesite. The granodiorite in places exhibits strong propylitic alteration.

RELATED A.R.: 10027, 11008, 13982

Isla Mist A.R. 17361 REPORT YEAR: 1988, 54 Pages, 4 Map(s)

OPERATOR(S): **Claw Res.**

AUTHOR(S): Christopher, P.A.

MINING DIV: Skeena

LOCATION: NTS 103G08E LAT. 53 24 00 LONG. 130 06 00

CLAIM(S): Isla 1-3,Isla 14,Isla Mist

EXPL. TARGET: Gold,Copper,Molybdenum/Molybdenite,Tungsten

WORK DONE: GEOL 800.0 ha - 1 Map(s); 1:2500

LINE 28.0 km

MAGG 18.3 km - 1 Map(s); 1:2500

ROCK 93 sample(s);ME

SOIL 732 sample(s);ME - 2 Map(s); 1:2500

GEOLOGY: The property is underlain by granodiorite and quartz monzonite of the Kim Granite. Price (1982) has mapped four phases with northwest trends: 1) granodiorite-pegmatite, 2) coarse biotite granodiorite, 3) altered fine monzonite and felsite, and 4) blocky quartz monzonite. Major fault directions are 295 degrees, 040-050 degrees and 80-90 degrees. Chalcopyrite, molybdenite, scheelite and pyrite have been identified in quartz veins.

RELATED A.R.: 14706

MINFILE: 103G

Ryan-Norma A.R. 16988 REPORT YEAR: 1988, 86 Pages, 2 Map(s)

OPERATOR(S): **Cons. Ripple Res.**

AUTHOR(S): Burton, A. Estabrooks, E.M.

MINING DIV: Skeena

LOCATION: NTS 103G08E LAT. 53 24 00 LONG. 130 12 00

CLAIM(S): Ryan 1-3,Norma 1-7

EXPL. TARGET: Silver,Gold,Copper

WORK DONE: EMGR 8.3 km; VLF

GEOL 4275.0 ha - 2 Map(s); 1:10 000,1:25 000

ROCK 83 sample(s);AU,AG,CU,PB,ZN,AS

SOIL 194 sample(s);AU,AG,CU,PB,ZN,AS

GEOLOGY: Granitic rocks envelop lenticular pods of marbles, quartzites, schists and unaltered carbonates. The region is faulted extensively. The Bank-Barge fault and intersecting secondary faults host the Bob and Tel mineral occurrences to the south. There is copper, gold and silver mineralization on the Ryan 2 claim.

RELATED A.R.: 15816

MINFILE: 103G

Yellow Giant A.R. 17503 REPORT YEAR: 1988, 142 Pages, 31 Map(s)

OPERATOR(S): **Trader Res.**

AUTHOR(S): Crawford, S.A. Vulimiri, M.R.

MINING DIV: Skeena

LOCATION: NTS 103G08E LAT. 53 22 00 LONG. 130 09 45

CLAIM(S): Yellow Giant 3-4

EXPL. TARGET: Gold,Silver

WORK DONE: DIAD 8018.7 m 71 hole(s);HQ - 30 Map(s); 1:500

GEOL 400.0 ha - 1 Map(s); 1:2500

SAMP 596 sample(s);AU,AG,AS,CU,PB,ZN

GEOLOGY: Gold mineralization is contained in a banded quartz-polymetallic sulphide vein emplaced in an east-west trending fault. Rock formations hosting the vein are isoclinally folded metasediments of probable Pennsylvanian age which have been intruded by Cretaceous quartz diorite and diorite dykes.

A total of 8018.7 metres (26 308 feet) of diamond drilling in 71 holes was carried out on the Tell deposit. In addition,

HECATE STRAIT 103G

geological mapping was done and a cat road was constructed at Doug Lake.

Probably geological reserves outlined by the 1987 drill holes are 95 716 tonnes with a grade of 14.30 grams gold per tonne (105 479 short tonnes averaging 0.417 ounces per tonne).

RELATED A.R.: 05862
MINFILE: 103G 026

Skarn A.R. 17450 REPORT YEAR: 1988, 30 Pages, 2 Map(s)

OPERATOR(S): **Vanadium Res.**
AUTHOR(S): Vulimiri, M.R.
MINING DIV: Skeena
LOCATION: NTS 103G08W, 103H05W LAT. 53 27 00 LONG. 129 59 59
CLAIM(S): Skarn,Skarn 2
EXPL. TARGET: Titanium,Vanadium,Iron
WORK DONE: GEOL 50.0 ha - 1 Map(s); 1:2000
ROCK 34 sample(s);VA,TI,FE - 1 Map(s); 1:2000
GEOLOGY: The Skarn property is primarily underlain by a titaniferous magnetite-bearing gabbroic complex. The mafic-ultramafic body is in fault contact with metasedimentary rocks and foliated granitic rocks.

Rock chip samples of the pyroxenite-gabbro unit were taken. The magnetic fractions of these samples were analysed for vanadium, titanium and iron. Similar values for vanadium and titanium to those from whole rock analyses (Vulimiri, 1987) were obtained. This indicates that these elements are not confined to the easily separable magnetic fraction.

MINFILE: 103G 039

IDI A.R. 18165 REPORT YEAR: 1988, 13 Pages

OPERATOR(S): **Industrial Dominion**
AUTHOR(S): Amendolagine, E.
MINING DIV: Skeena
LOCATION: NTS 103G16E LAT. 53 51 00 LONG. 130 04 00
CLAIM(S): IDI
EXPL. TARGET: Iron
WORK DONE: PROS 1.0 ha
GEOLOGY: The property is underlain by Quartz monzonite in northwest and Permian metasediments in northeast. A 100 metre long magnetite ore zone strikes northwest and dips east, lies concordant with bedding and schistosity.
MINFILE: 103G 016

DOUGLAS CHANNEL 103H

Surf Inlet A.R. 17275 REPORT YEAR: 1988, 102 Pages, 11 Map(s)

OPERATOR(S): **Surf Inlet Mines**
AUTHOR(S): Burton, R.K. Gardiner, S.L.
MINING DIV: Skeena
LOCATION: NTS 103H02W LAT. 53 04 56 LONG. 128 53 53
CLAIM(S): Surf 1
EXPL. TARGET: Gold
WORK DONE: LINE 2.5 km
OBDR 108.2 m 31 hole(s) - 11 Map(s); 1:1000,1:480
SAMP 83 sample(s);AU
GEOLOGY: Gold mineralization is localized along an extensive northerly trending shear zone which cuts gneiss and diorite of the Upper Cretaceous Coast Plutonic Complex. Gold occurs with pyrite in quartz-ankerite-sericite-sulphide veins within the zone. It had been suggested that recovery of gold from tailings remaining from previous operations (early 1900's to 1942) would be economically viable if an adequate volume of material at a grade of greater than 1.71 grams per tonne was present. The present survey showed that approximately 169 500 tonnes of tailings at an average grade of 1.131 grams per tonne are contained in the area near the mouth of Paradise Creek.
RELATED A.R.: 05393, 15369, 15377, 16092
MINFILE: 103H 027

Campania A.R. 17559 REPORT YEAR: 1988, 25 Pages

OPERATOR(S): **Falconbridge**
AUTHOR(S): Hassard, F.R.
MINING DIV: Skeena
LOCATION: NTS 103H03W LAT. 53 01 20 LONG. 129 25 20
CLAIM(S): Campania
EXPL. TARGET: Silica
WORK DONE: META 7 sample(s);SI
SAMP 7 sample(s);SI
GEOLOGY: Several bodies of quartz are hosted by granitic rocks of the Coast Range Plutonic Complex on Campania Island. The largest of these measures 104 metres in length and up to 30 metres in width.
MINFILE: 103H 041

Keech A.R. 17180 REPORT YEAR: 1987, 141 Pages, 15 Map(s)

OPERATOR(S): **New Global Res.**
AUTHOR(S): Lennan, W.B. Shearer, J.T.
MINING DIV: Skeena
LOCATION: NTS 103H05W LAT. 53 18 26 LONG. 129 58 34
CLAIM(S): Keech
EXPL. TARGET: Gold,Zinc
WORK DONE: DIAD 464.6 m 7 hole(s);IAX - 6 Map(s); 1:250
EMGR 8.0 km;VLF - 1 Map(s); 1:1000
GEOL 320.0 ha - 5 Map(s); 1:2500,1:1000,1:250,1:50
PITS 14 pit(s)
ROCK 133 sample(s);AU
SAMP 411 sample(s);AU
SILT 29 sample(s);AU
SOIL 1151 sample(s);AU - 2 Map(s); 1:2500,1:1000
SPOT 10.0 km - 1 Map(s); 1:1000
GEOLOGY: The claim is underlain by a central narrow septa of metamorphosed marbles and siltstones with hornblende diorite to the southwest and biotite-quartz monzonite to the northeast. Quartz veins up to 1 metre wide containing gold values up to 135.2 grams per tonne have been drilled in the past and in 1987. These quartz veins are mainly oriented northerly to northwesterly. Sphalerite mineralization has also been found at the metasedimentary contact near Keecha Creek.
RELATED A.R.: 15301, 16707, 17503
MINFILE: 103H 010, 103H 042

DOUGLAS CHANNEL 103H

Keech A.R. 16707 REPORT YEAR: 1987

OPERATOR(S): **Gold Ventures**
AUTHOR(S): Lennan, W.B.
MINING DIV: Skeena
LOCATION: NTS 103H05W LAT. 53 18 13 LONG. 129 58 24
CLAIM(S): Keech 1
WORK DONE: DIAD 464.3 m 7 hole(s);IAX
EMGR 8.6 km;VLF
GEOL 320.0 ha
LINE 10.2 km
PITS 10 pit(s)
ROCK 133 sample(s);AU
SAMP 411 sample(s);AU
SILT 29 sample(s);AU
SOIL 1151 sample(s);AU
GEOLOGY: The property is underlain by a belt of metasedimentary rocks comprised of biotite schist and siltstone, a biotite-quartz monzonite and a biotite-hornblende diorite. Fracture related gold-bearing quartz veins occur.
RELATED A.R.: 00656, 00657, 04493, 15301

VG A.R. 17332 REPORT YEAR: 1988, 77 Pages, 19 Map(s)

OPERATOR(S): **Corner Globe Res.**
AUTHOR(S): King, G.R.
MINING DIV: Skeena
LOCATION: NTS 103H05W LAT. 53 16 00 LONG. 129 57 00
CLAIM(S): VG,VG 2
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: EMGR 10.0 km;VLF - 7 Map(s); 1:5000
GEOL 200.0 ha - 1 Map(s); 1:5000
MAGG 10.0 km - 2 Map(s); 1:5000
ROCK 29 sample(s);AS,CU,PB,ZN,AG,AU,WO
SILT 17 sample(s);AS,CU,PB,ZN,AG,AU,WO - 5 Map(s); 1:5000
SOIL 247 sample(s);AG,AS,CU,PB,ZN,WO,AU - 4 Map(s); 1:5000
GEOLOGY: The property is underlain by plutonic rocks, granodiorites and minor metapelitic rocks, of the Coast Crystalline belt. Anomalous precious metal values were obtained from sedimentary rocks with disseminated pyrite and well developed gossan. Small quartz veins in granodiorite contained minor amounts of pyrite, arsenopyrite and possibly molybdenite.
RELATED A.R.: 14537

Ecstall A.R. 16711 REPORT YEAR: 1987

OPERATOR(S): **Falconbridge Nickel**
AUTHOR(S): Hassard, F.R. Fournier, J.D. Manojlovic, P.M.
MINING DIV: Skeena
LOCATION: NTS 103H13E, 103H14W LAT. 53 50 56 LONG. 129 31 35
CLAIM(S): Red 2-4,Blue 1-2,Green 1,Skinny Fr.
WORK DONE: EMGR 33.0 km;HLEM,VLF
GEOL 500.0 ha
LINE 33.0 km
MAGG 33.0 km
SOIL 838 sample(s);CU,PB,ZN,AG,AU,BA,AS
GEOLOGY: The claims are underlain by metamorphic rocks of the Ecstall Pendant, Central Gneiss Complex of possible Early Paleozoic-Early Mesozoic age. Metamorphic grade is greenschist to amphibolite. The property surrounds the Ecstall massive sulphide deposit and is underlain by favourable metavolcanic rocks hosting that deposit. Foliation and bedding strike northerly; dips are steep to the east or west.
RELATED A.R.: 15328, 15488, 16600

El Amino A.R. 17682 REPORT YEAR: 1988, 46 Pages, 1 Map(s)

OPERATOR(S): **New Global Res.**
AUTHOR(S): Shearer, J.T.
MINING DIV: Skeena
LOCATION: NTS 103H13E LAT. 53 48 00 LONG. 129 33 00
CLAIM(S): El Amino,Briton,Samson,Regal
EXPL. TARGET: Gold,Copper,Lead,Zinc
WORK DONE: GEOL 50.0 ha - 1 Map(s); 1:5000
ROCK 20 sample(s);AU,AG,CU,PB,ZN
SOIL 45 sample(s);AU,AG,CU,PB,ZN
GEOLOGY: A massive sulphide horizon consisting of pyrrhotite, chalcopyrite, minor sphalerite and galena is exposed along a very steep cliff for at least 30 metres. Assay values range up to 4.46 per cent copper and 240.4 grams of silver per tonne. The host rocks are quartzite and limy siltstone of the Paleozoic Alexander Terrane. The massive sulphide horizon is tightly folded and varies in width from 0.4 metres to 1.4 metres, oriented 258/70 degrees east.
MINFILE: 103H

TERRACE 103I

J A.R. 16860 REPORT YEAR: 1987, 13 Pages, 1 Map(s)

OPERATOR(S): **Rayner, G.H. and Assoc.**
AUTHOR(S): Rayner, G.H.
MINING DIV: Skeena
LOCATION: NTS 103I02E LAT. 54 10 21 LONG. 128 40 06
CLAIM(S): J 1-2
EXPL. TARGET: Copper,Gold
WORK DONE: GEOL 1000.0 ha - 1 Map(s); 1:5000
GEOLOGY: Bedded pyrite and some chalcopyrite occur in a pendant of Lower Jurassic Hazelton Group andesite tuffs surrounded by Upper Cretaceous Coast Plutonic Complex intrusives.

Kitimat A.R. 16693 REPORT YEAR: 1987 1 Map(s)

OPERATOR(S): **BP Res. Can.**
AUTHOR(S): Pegg, R.
MINING DIV: Skeena
LOCATION: NTS 103I02E LAT. 54 07 41 LONG. 128 43 27
CLAIM(S): Billy 1-10
WORK DONE: DIAD 210.9 m 4 hole(s);BQ
GEOL 380.0 ha - 1 Map(s); 1:5000
IPOL 10.6 km
LINE 23.3 km
ROAD 0.5 km
ROCK 155 sample(s);ME
SAMP 49 sample(s);AU

SILT 13 sample(s);ME
SOIL 156 sample(s);ME
TOPO 2450.0 ha

GEOLOGY: The project area is underlain by intermediate volcanics of the Lower Jurassic Telkwa Formation which are bordered on the west and south by dioritic intrusives. The volcanics are cut by numerous dykes. Erratic gold values of up to 4 grams per tonne gold over 2 metres are found in a local, discontinuous, silicified section of tuff breccia. Pyrite and local, minor barite concentrations were also observed within shear and/or contact metasomatic zones.

RELATED A.R.: 15528, 16664

Scotia A.R. 16795 REPORT YEAR: 1987, 31 Pages, 5 Map(s)

OPERATOR(S): **Kidd Creek Mines**
AUTHOR(S): Hendrickson, G.A. Hassard, F.R.
MINING DIV: Skeena
LOCATION: NTS 103I04E LAT. 54 04 48 LONG. 129 40 12
CLAIM(S): Scotia 1
EXPL. TARGET: Zinc
WORK DONE: EMGR 9.0 km;VLF - 1 Map(s); 1:5000
LINE 10.7 km - 1 Map(s); 1:5000
MAGG 9.0 km - 3 Map(s); 1:5000

GEOLOGY: The claims are underlain by metamorphic rocks of the Central Gneiss Complex of possible early Paleozoic to early Mesozoic age. Metamorphic grade is amphibolite. The property hosts the incompletely explored Scotia deposit, which presently has reserves in the order of 200,000 tonnes grading approximately 12-14 per cent zinc.

RELATED A.R.: 09302, 10332, 13794
MINFILE: 103I 007

Columario Gold Mine A.R. 17551 REPORT YEAR: 1988, 66 Pages, 20 Map(s)

OPERATOR(S): **Hillsborough Res.**
AUTHOR(S): Read, W.S.
MINING DIV: Omineca
LOCATION: NTS 103I09W LAT. 54 34 42 LONG. 128 23 02
CLAIM(S): Valhalla 2-4,Cloud,Hans,KP 1
EXPL. TARGET: Gold
WORK DONE: GEOL 50.6 ha - 18 Map(s); 1:1500,1:250
LSUR 3.1 km - 1 Map(s); 1:1500
ROAD 2.8 km
ROCK 238 sample(s);AU
UNDV 1462.5 m;RHAB
USUR 1462.5 m - 1 Map(s); 1:250

GEOLOGY: A sequence of fine to medium grained andesitic lavas, occasionally porphyritic, are intruded by two major facies of the Upper Cretaceous Coast Plutonic Complex and two minor facies as dykes. Gold mineralization occurs in quartz veins.

RELATED A.R.: 12781
MINFILE: 103I 077

Lucky Boy A.R. 17260 REPORT YEAR: 1988, 312 Pages, 15 Map(s)

OPERATOR(S): **AJM Metals**
AUTHOR(S): Mortimer, L.C.
MINING DIV: Omineca
LOCATION: NTS 103I09W LAT. 54 33 03 LONG. 128 25 30
CLAIM(S): Luckey B
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 1917.0 m 20 hole(s);NQ - 10 Map(s); 1:1000,1:500
SAMP 170 sample(s);ME
SOIL 675 sample(s);ME - 5 Map(s); 1:1000

GEOLOGY: The claim is located at the contact zone between intrusive rocks of the Upper Cretaceous Coast Plutonic Complex and metavolcanics of the Middle Jurassic Hazelton Group. The host structure is an easterly dipping, northeasterly trending quartz vein of an average width of 0.35 metres. Coarsely disseminated cubic pyrite often composes up to 20 per cent of the vein and is always associated with the higher gold values. Alteration is moderate, with epidote and sericite flooding associated with the vein contact areas. The vein is thought to be following a fault gouge of an average width of 0.2 metres.

MINFILE: 103I 146

Misty A.R. 17952 REPORT YEAR: 1988, 105 Pages, 6 Map(s)

OPERATOR(S): **Goldways Res.**
AUTHOR(S): Crooker, G.F.
MINING DIV: Skeena
LOCATION: NTS 103I10W, 103I15W LAT. 54 45 00 LONG. 128 54 00
CLAIM(S): Misty,Misty 1,Misty 3-4
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 20.5 km;VLF - 1 Map(s); 1:5000
GEOL 400.0 ha - 1 Map(s); 1:5000
LINE 13.4 km
MAGG 20.8 km - 1 Map(s); 1:5000
PROS 600.0 ha
ROCK 110 sample(s);AU,ME
SOIL 560 sample(s);AU,ME - 3 Map(s); 1:5000

GEOLOGY: Metasediments of the Upper Jurassic to Lower Cretaceous Bowser Lake Group have been intruded by granodiorite and diorite of the Cretaceous Coast Plutonic Complex. Precious metal mineralization is related to shear and fracture zones containing quartz veins and veinlets. Sulphide minerals present include pyrite, galena, sphalerite, chalcopyrite, molybdenite and arsenopyrite.

RELATED A.R.: 09239, 10128, 10827, 15455, 16302
MINFILE: 103I 213

DX A.R. 17976 REPORT YEAR: 1988, 19 Pages

OPERATOR(S): **Shaede, E.A.**
AUTHOR(S): Shaede, E.A.
MINING DIV: Omineca
LOCATION: NTS 103I15E LAT. 54 51 00 LONG. 128 32 00
CLAIM(S): DX.DXS

CONFIDENTIAL STATUS

TERRACE 103I

Mayo Creek A.R. 17890 REPORT YEAR: 1988, 22 Pages, 3 Map(s)

OPERATOR(S): **Young, D.M.**
AUTHOR(S): Ogryzlo, P.
MINING DIV: Skeena
LOCATION: NTS 103I15W LAT. 54 48 00 LONG. 129 00 00
CLAIM(S): Full,Moon
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 50.0 ha - 1 Map(s); 1:2000
ROCK 26 sample(s);ME - 2 Map(s); 1:2000
SOIL 7 sample(s);ME
GEOLOGY: Epithermal polymetallic quartz veins carry silver, gold, lead, copper and other base metals which cut a multiple phase stock and its flanking sediments.
MINFILE: 103I 173

PRINCE RUPERT 103J

Porcher Island A.R. 16735 REPORT YEAR: 1987

OPERATOR(S): **Cathedral Gold**
AUTHOR(S): Taylor, A.B.
MINING DIV: Skeena
LOCATION: NTS 103J02E LAT. 54 01 24 LONG. 130 35 19
CLAIM(S): Nabob,Jeanie,Western Hope,Trixie,Toby 1-2,BR 1
WORK DONE: DIAD 2429.6 m 14 hole(s);BQ
IPOL 12.9 km
LINE 14.3 km
SAMP 1080 sample(s);ME
GEOLOGY: Basement rocks consist of Jurassic Prince Rupert schists consisting of metavolcanics, amphibolites and meta-intrusives intruded by an Upper Cretaceous quartz diorite (Coast Plutonic Complex). Auriferous pyritic quartz veins occur within the quartz diorite body near the intrusive contact with the basement rocks.
RELATED A.R.: 14602, 15225, 15411

Porcher Island A.R. 17076 REPORT YEAR: 1988, 45 Pages, 2 Map(s)

OPERATOR(S): **Cathedral Gold**
AUTHOR(S): Taylor, A.B.
MINING DIV: Skeena
LOCATION: NTS 103J02E LAT. 54 01 48 LONG. 130 35 00
CLAIM(S): BR 1-2,Kerry,Tippy,Toby 1-2
EXPL. TARGET: Gold,Silver
WORK DONE: ROCK 6 sample(s);ME
SILT 132 sample(s);ME
SOIL 941 sample(s);ME - 2 Map(s); 1:2500
GEOLOGY: Auriferous quartz-pyrite veins occur in a quartz diorite plug of Cretaceous age. The intrusive is contained by the Prince Rupert schists. The veins apparently are subvertical, east trending and have been traced in the mine for 50 metres.
RELATED A.R.: 14602, 15225, 15411, 16735
MINFILE: 103J 018, 103J 022

Porcher Island A.R. 17861 REPORT YEAR: 1988, 13 Pages, 1 Map(s)

OPERATOR(S): **Cathedral Gold**
AUTHOR(S): Taylor, A.B.
MINING DIV: Skeena
LOCATION: NTS 103J02E LAT. 54 01 30 LONG. 130 35 30
CLAIM(S): Jolt,Pro Fr.
EXPL. TARGET: Gold
WORK DONE: IPOL 6.0 km - 1 Map(s); 1:1250
LINE 6.0 km
GEOLOGY: Auriferous quartz-pyrite veins occur in a Cretaceous age quartz diorite intruding the Prince Rupert schists. Veins occur in shear and dilational features striking east and dipping sub-vertically.
RELATED A.R.: 14602, 15225, 15411, 16735, 17076

NASS RIVER 103O

Bonus A.R. 17705 REPORT YEAR: 1988, 33 Pages, 4 Map(s)

OPERATOR(S): **Lonetree Res.**
AUTHOR(S): Kruchkowski, E.R.
MINING DIV: Skeena
LOCATION: NTS 103O09E LAT. 55 45 00 LONG. 130 05 00
CLAIM(S): Bonus 5
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: GEOL 7.0 ha - 2 Map(s); 1:1000,1:100
ROCK 11 sample(s);AU,AG
SOIL 132 sample(s);AU,AG - 2 Map(s); 1:1000
UNDV 39.6 m;RHAB
GEOLOGY: Jurassic volcanics form a pendant in Upper Cretaceous Coast Plutonic Complex rocks. Pyrrhotite, pyrite, chalcopyrite, sphalerite and galena mineralization is found within quartz veins emplaced along shear zones.
RELATED A.R.: 16405
MINFILE: 103O 015

Bonus A.R. 17644 REPORT YEAR: 1988, 34 Pages

OPERATOR(S): **Bighorn Dev.**
AUTHOR(S): Kruchkowski, E.R.
MINING DIV: Skeena
LOCATION: NTS 103O16E LAT. 55 46 00 LONG. 130 02 00
CLAIM(S): Bonus 6-7
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 150.0 ha
ROCK 12 sample(s);AU,AG
SILT 13 sample(s);AU,AG
GEOLOGY: The property is situated on the eastern contact of the Coast Range Batholith and Hazelton volcanic and sedimentary rocks. No mineralization in place has been located, but silt samples contain up to 865 ppb gold and rock samples contain up to 165 ppb gold.

Gold Wedge A.R. 16905 REPORT YEAR: 1987, 91 Pages, 11 Map(s)

OPERATOR(S): **Marina Ex.**
AUTHOR(S): DiSpirito, F. Hulme, N.J.
MINING DIV: Skeena
LOCATION: NTS 103O16E, 103P13W LAT. 55 52 00 LONG. 130 00 00

NASS RIVER 103O

CLAIM(S): McFadden,Pat,Emma Gordon,Sheila,Ag-Pry,Midas,Marcel
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: EMGR 32.4 km;VLF - 1 Map(s); 1:5000
GEOL 1250.0 ha - 5 Map(s); 1:20 000,1:5000,1:1000,1:200
LINE 38.8 km
MNGR 1 sample(s)
SAMP 60 sample(s);AU,AG,CU,PB,ZN
SOIL 1027 sample(s);ME - 5 Map(s); 1:5000
GEOLOGY: Fissure quartz veins and replacement zones carry precious metals. Claims are totally underlain by Tertiary Hyder quartz monzonite.
MINFILE: 103O 047, 103P 096, 103P 100

NASS RIVER 103P

Anyox A.R. 18135 REPORT YEAR: 1988, 33 Pages, 5 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Aulis, R.J.
MINING DIV: Skeena
LOCATION: NTS 103P05E LAT. 55 25 00 LONG. 129 49 00
CLAIM(S): Cannon 1,Tauw 1,Tauw 3,Ann 3,Anza 5,Any 4
EXPL. TARGET: Copper
WORK DONE: DIAD 494.5 m 1 hole(s);NQ - 1 Map(s); 1:1000
GEOL 405.0 ha - 4 Map(s); 1:500,1:1000,1:3000,1:5000
LINE 14.0 km
GEOLOGY: The Anyox area is underlain by an assemblage of probably Triassic age sedimentary rocks which form a large roof pendant (14.5 by 9.6 kilometres) in the Coast Range batholith. The mineralization in the area occurs at or near an extensive pillow basalt/sediment contact. Most of the known sulphide deposits are interpreted as being of volcanogenic-exhalative origin. The massive sulphides are typical of those associated with basaltic volcanism i.e. "Besshi-type". The sulphides consist of massive iron sulphides (both pyrrhotite and pyrite) hosting chalcopyrite with lesser sphalerite.
MINFILE: 103P 021, 103P 025

Tidewater A.R. 17842 REPORT YEAR: 1988, 79 Pages

OPERATOR(S): **Richmark Res.**
AUTHOR(S): LeBel, J.L.
MINING DIV: Skeena
LOCATION: NTS 103P05E LAT. 55 27 30 LONG. 129 34 00
CLAIM(S): Success,Tide
EXPL. TARGET: Molybdenum/Molybdenite,Gold,Silver
WORK DONE: DIAD 610.0 m 4 hole(s);BQ
SAMP 310 sample(s);AU,AG
GEOLOGY: The property is underlain primarily by Hazelton Group sedimentary rocks of Jurassic age, which are intruded by the Tidewater stock, probably of Late Cretaceous or Early Tertiary age. The Tidewater stock is a quartz monzonite measuring 250 by 400 metres. Its long axis trends northeast. A variety of dykes are oriented northeast or northwest. The base metal - precious metal quartz veins post-date the major quartz molybdenitem mineralization.
MINFILE: 103P 111

Tidewater A.R. 17285 REPORT YEAR: 1988, 70 Pages

OPERATOR(S): **Richmark Res.**
AUTHOR(S): LeBel, J.L.
MINING DIV: Skeena
LOCATION: NTS 103P05E LAT. 55 28 07 LONG. 129 32 47
CLAIM(S): Tide,Tide II,Success,Molybdenum
EXPL. TARGET: Gold
WORK DONE: PITS 3 pit(s)
ROCK 202 sample(s);ME
SOIL 392 sample(s);ME
TREN 30.0 m 2 trench(es)
GEOLOGY: The property is underlain primarily by Lower Jurassic Hazelton Group sedimentary rocks consisting of argillite, siltstone, fine grained sandstone, lesser greywacke and tuffs. The sediments have been hornfelsed around the Tidewater stock of quartz monzonite or granite composition. Widespread molybdenite mineralization occurs in banded quartz-molybdenite veins, in quartz vein stockworks, as disseminations and as fracture coatings within and around the Tidewater stock. Gold and silver mineralization occurs in quartz veins and shears within the Tidewater stock. These veins trend north to northwesterly and appear to be unrelated to the sheeted quartz-molybdenite veins which are a different age and are devoid of gold.
RELATED A.R.: 06961, 07444, 07966, 08569
MINFILE: 103P 111

Anyox A.R. 17396 REPORT YEAR: 1988, 66 Pages, 7 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): De Carle, R.J.
MINING DIV: Skeena
LOCATION: NTS 103P05W LAT. 55 25 00 LONG. 129 50 00
CLAIM(S): Don 1-7,AHW 1-6,AHW 13-20,AHW 22 Fr.,AHW 34 Fr.,AHW 36 Fr.,Anyox Sineher,Mill,Town,Ann 1-3, Car 1-4,Bon 1-6,Tauw 1-5,Anza 1-5,Any 1-5
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: EMAB 660.0 km; VLF - 6 Map(s); 1:20 000
MAGA 660.0 km - 1 Map(s); 1:20 000
GEOLOGY: The Anyox area is underlain by an assemblage of Triassic ? sedimentary rocks which form a large roof pendant (9.6 X 14.4 km) in the Coast Range batholith. Mineralization in the area occurs at or near an extensive pillow basalt/sediment contact. Most of the known sulphide deposits are interpreted as being of volcanogenic-exhalative origin. The massive sulphides are typical of those associated with basaltic volcanism i.e. "Besshi-type". The sulphides consist of pyrrhotite, pyrite, chalcopyrite and some sphalerite.
MINFILE: 103P 023, 103P 024, 103P 025, 103P 026, 103P 222, 103P 226, 103P 241, 103P 243, 103P 244

Anyox A.R. 17119 REPORT YEAR: 1988, 190 Pages, 7 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Jackisch, I. Rhodes, D.
MINING DIV: Skeena
LOCATION: NTS 103P05W LAT. 55 26 44 LONG. 129 49 37
CLAIM(S): Don 1-2,Don 7,AHW 36,Ann 2,Anyox Town,Nabob Fr.,Ottawa,Revenge,Rudge,Spruce,Balsam,Blue Jay, Boulder,Buffalo,Gamma
EXPL. TARGET: Copper
WORK DONE: DIAD 1517.0 m 6 hole(s);NQ - 3 Map(s); 1:500
EMGR 30.7 km;HLEM
GEOL 506.0 ha - 2 Map(s); 1:5000

LINE 70.0 km
MAGG 25.7 km - 2 Map(s); 1:5000
ROAD 5.0 km

GEOLOGY: The Anyox area is underlain by an assemblage of probably Triassic age sedimentary rocks which form a large roof pendant (14 by 9 kilometres) in the Upper Cretaceous Coast Plutonic Complex. The mineralization in the area occurs at or near an extensive pillow basalt/sediment contact. Most of the known sulphide deposits are interpreted as being of volcanogenic-exhalative origin. The massive sulphides are typical of those associated with basaltic volcanism i.e. "Besshi-type". The sulphides consist of massive iron sulphides (both pyrrhotite and pyrite) hosting chalcopyrite with lesser sphalerite.

MINFILE: 103P 021, 103P 244

Goldkeish A.R. 18127 REPORT YEAR: 1988, 14 Pages, 1 Map(s)

OPERATOR(S): **Pacific Geo-Roc Ex.**
AUTHOR(S): Wares, R.
MINING DIV: Skeena
LOCATION: NTS 103P05W LAT. 55 25 00 LONG. 129 47 00
CLAIM(S): Goldkeish,Goldkeish 2,Goldkeish 4
EXPL. TARGET: Gold
WORK DONE: GEOL 75.0 ha - 1 Map(s); 1:5000

GEOLOGY: The property is underlain by a monoclinal sequence of deep water turbidite units, ranging from coarse sandstone to argillite. The units are part of Hazelton sequence. Quartz vein on Goldkeish have been previously mined as source of smelter flux for Anyox smelts in 1929-1935. The vein is exposed underground for a strike length of 180 metres with widths varying from 1.2 to 1.5 metres wide. Some gold values are present in marginal sulphide zones.

MINFILE: 103P 027

Silver Bow A.R. 18075 REPORT YEAR: 1988, 135 Pages, 8 Map(s)

OPERATOR(S): **Pacific Northern Ventures**
AUTHOR(S): DiSpirito, F. Mayer, M.
MINING DIV: Skeena
LOCATION: NTS 103P06W LAT. 55 24 00 LONG. 129 29 00
CLAIM(S): Andra,Brownie Fr.,Storm King,45,Violet,Sunset 1,Sunset 3,Silver Bow
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 17.6 km;VLF - 2 Map(s); 1:5000
GEOL 900.0 ha - 1 Map(s); 1:5000
LINE 21.4 km
MAGG 17.6 km - 1 Map(s); 1:5000
MNGR 1 sample(s)
ROCK 38 sample(s);AU,ME
SILT 6 sample(s);ME
SOIL 594 sample(s);ME - 4 Map(s); 1:5000

GEOLOGY: Upper Jurassic Nass Formation sediments of the Hazelton Assemblage are underlain by granodiorite of the Coast Plutonic Complex. Massive sulphides are found in shear zones within these units. Most of the property is covered by glacial drift.

MINFILE: 103P 118, 103P 117

Croesus A.R. 17660 REPORT YEAR: 1988, 21 Pages, 3 Map(s)

OPERATOR(S): **Teuton Res.**
AUTHOR(S): Cremonese, D.M.
MINING DIV: Skeena
LOCATION: NTS 103P13E, 104A04E LAT. 56 00 00 LONG. 129 31 00
CLAIM(S): Croesus 1-4
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: ROCK 23 sample(s);ME - 3 Map(s); 1:5000
SILT 9 sample(s);ME

GEOLOGY: Volcaniclastic rocks of the Lower Jurassic Hazelton Group are overlain to the east by Middle to Upper Jurassic argillites of the Bowser Group. A zone of pyritized tuffs parallel to the contact contains copper/gold mineralization possibly related to quartz stockworks. Stream sediments contain anomalous levels of copper, gold, lead, zinc, molybdenum and cobalt.

Gold Mountain A.R. 18096 REPORT YEAR: 1988, 17 Pages, 1 Map(s)

OPERATOR(S): **Kowall, C.**
AUTHOR(S): Kowall, C.
MINING DIV: Skeena
LOCATION: NTS 103P13E LAT. 56 57 30 LONG. 129 34 00
CLAIM(S): Gold Mountain 1-3
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: PROS 1500.0 ha - 1 Map(s); 1:10 000
SAMP 15 sample(s);AU,AG

GEOLOGY: Folded andesites and rhyolites are interbedded with shales and limestones of possible Hazelton Formation of Jurassic age. The rocks are locally sheared ,silicified and pyritized. Sphalerite, galena, chalcopyrite and arsenopyrite are also present in north trending massive sulphide boulders and lenses as well as disseminations. Widths of up to 9 metresor more with strike lengths potentially in excess of 300 metres is possible.

Heat A.R. 17627 REPORT YEAR: 1988, 28 Pages, 3 Map(s)

OPERATOR(S): **Cremonese, D.M.**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Skeena
LOCATION: NTS 103P13W LAT. 55 53 00 LONG. 129 56 30
CLAIM(S): Heat 1-3
WORK DONE: EMAB 51.0 km;VLF - 2 Map(s); 1:10 000
MAGA 51.0 km - 1 Map(s); 1:10 000

GEOLOGY: The Heat 1-3 claims are situated on the intrusive contact of the Hyder quartz monzonite with Unuk River Formation (Hazelton assemblage) volcanic epiclastics and Salmon River Formation (Bowser assemblage) sedimentary rocks. The Middle Jurassic siltstones and greywackes of the Salmon River Formation form a tight, partially overturned syncline unconformably overlying Unuk River rocks on the west side of Heat 2. The Eocene quartz monzonite intrusive rocks occupy the southwest corner of Heat 3. The Unuk River volcanic epiclastics and crystal tuffs have been metamorphosed in a kilometre wide belt next to the quartz monzonite intrusive. This has resulted in a zone of highly sheared and deformed schists and gneisses. The well-developed foliation within the metamorphic rocks parallels the contact of the quartz monzonite intrusive.

Vein mineralization in the vicinity of the claims appears to be limited to faulted and fractured areas of the Unuk River epiclastics. A major northwest-southeast fracture system extends from Portland Canal across Mount Rainey and through the Heat 1-3 claims.

MINFILE: 103P 096, 103P 097

Mobile A.R. 17606 REPORT YEAR: 1988, 28 Pages, 3 Map(s)

OPERATOR(S): **Cremonese, D.M.**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Skeena
LOCATION: NTS 103P13W LAT. 55 58 00 LONG. 129 53 00
CLAIM(S): Mobile,MO 1-3
WORK DONE: EMAB 96.0 km; VLF - 2 Map(s); 1:10 000
MAGA 96.0 km - 1 Map(s); 1:10 000
GEOLOGY: The Mo Group is underlain by a thick succession of highly deformed siltstones, greywackes and argillites of the Salmon River Formation, Bowser assemblage, and an Eocene augite diorite stock referred to as the Glacier Creek pluton (Grove 1971). The siltstones are folded and sheared, particularly around the margins of the intrusive. The northeast corner of Mo 2 extends over part of the Bitter Creek quartz monzonite intrusive. All rocks in the area are cut by a variety of dykes ranging from Portland Canal quartz monzonite and granodiorite, to Premier granodiorite porphyry and lamprophyres. Vein mineralization on the Mo Group is primarily confined to fracture systems within the Salmon River siltstones, although some mineralized veins have been found within the augite diorite stock.
MINFILE: 103P 064

A.E.I. A.R. 17577 REPORT YEAR: 1988, 15 Pages

OPERATOR(S): **Ingelson, A. Cox, J.**
AUTHOR(S): Ingelson, A. Cox, J.
MINING DIV: Skeena
LOCATION: NTS 104A04W LAT. 56 12 00 LONG. 129 57 10
CLAIM(S): A.E.I. 1
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: PROS 45.0 ha
GEOLOGY: Pyrite and arsenopyrite are disseminated throughout oxidized greenish tuffs of the Betty Creek Formation, Hazelton Group. Minor silver, gold, lead and zinc values are associated with the sulphides. Host rock petrography is as follows: 10 per cent plagioclase, 5 per cent chlorite, 5 per cent epidote, 5 per cent pyrite/arsenoyrite, 25 per cent altered chlorite, sericite and epidote.

Arp A.R. 17605 REPORT YEAR: 1988, 25 Pages, 3 Map(s)

OPERATOR(S): **Cremonese, D.M.**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Skeena
LOCATION: NTS 104A04W LAT. 56 01 30 LONG. 129 59 00
CLAIM(S): Arp,Breton,Tanguy
WORK DONE: EMAB 65.0 km; VLF - 2 Map(s); 1:10 000
MAGA 65.0 km - 1 Map(s); 1:10 000
GEOLOGY: The Arp, Tanguy and Breton claims cover almost entirely the Lower Jurassic volcanic epiclastics of the Unuk River Formation, Hazelton assemblage. The rocks consist of green, red and purple massive volcanic conglomerate sandstone and breccia with minor intercalated siltstones. Small satellite stocks of Middle Jurassic Texas Creek granodiorite intrusive complex have been mapped near the centre of the Tanguy-Breton claims and to the north and east of the Arp claim. Premier dykes of granodiorite porphyry trend into the claim group from the Silbak Premier mine area about four kilometres to the northwest. Other rock types on the property are a small section of cataclasites and mylonites in the northwest corner of Breton, and a circular outlier of Middle Jurassic volcanic epiclastics of the Betty Creek Formation, Bowser assemblage, which rest unconformably on the Unuk River rocks along the crest of Bear River Ridge.
MINFILE: 104A 045, 104A 072

Ben Ali A.R. 16633 REPORT YEAR: 1988, 192 Pages

OPERATOR(S): **Rose Spit Res.**
AUTHOR(S): Krohman, D. DiSpirito, F.
MINING DIV: Skeena
LOCATION: NTS 104A04W, 103P13W LAT. 55 59 57 LONG. 129 55 45
CLAIM(S): Ben Ali (L.4283),Ben Ali No.2 (L.4470),Sunbeam Fr. (L.4469)
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 13.3 km;VLF
GEOL 75.0 ha
LINE 14.3 km
MAGG 13.3 km
RECL
ROCK 107 sample(s);AG,CU,ZN,PB,AU
SAMP 27 sample(s);AG,CU,ZN,PB,AU
SOIL 1226 sample(s);ME
TREN
GEOLOGY: Pyrite, sphalerite and galena mineralized quartz breccia veins occur in a quartz monzonite host rock. Veins were intruded into fissure zones to produce high grade (precious metal) ore shoots. Epiclastic volcanics and metasediments compose the remaining lithologies of the property. Propylitic alteration and silicification are found near the vein/country rock contact, but is not extensive.
MINFILE: 103P 052, 103P 053

Chris A.R. 17608 REPORT YEAR: 1988, 27 Pages, 3 Map(s)

OPERATOR(S): **Cremonese, D.M.**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Skeena
LOCATION: NTS 104A04W LAT. 56 14 00 LONG. 129 53 00
CLAIM(S): Chris 1-4
WORK DONE: EMAB 83.0 km; VLF - 2 Map(s); 1:10 000
MAGA 83.0 km - 1 Map(s); 1:10 000
GEOLOGY: The Chris claim group is situated on the axis of the American Creek anticline: an open, slightly inclined regional fold of Unuk River (Hazelton assemblage) and Betty Creek (Bowser assemblage) volcanic, volcaniclastic and sedimentary rocks. The property is almost entirely underlain by Lower Jurassic, red and green volcanic conglomerates and sandstones of the Unuk River Formation. Middle Jurassic volcanic conglomerates, breccias and crystal and lithic tuffs of the Betty Creek Formation unconformably overlie the Unuk River rocks on the west side of the property. The Chris claim group is bisected by normal faults parallel to the axial plane of the American Creek anticline.

Ernst A.R. 17629 REPORT YEAR: 1988, 27 Pages, 3 Map(s)

OPERATOR(S): **Cremonese, D.M.**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Skeena
LOCATION: NTS 104A04W LAT. 56 09 00 LONG. 129 53 00
CLAIM(S): Ernst 1-2,Pabicia
WORK DONE: EMAB 85.0 km;VLF - 2 Map(s); 1:10 000
MAGA 85.0 km - 1 Map(s); 1:10 000
GEOLOGY: The claims straddle the axis of the American Creek anticline, an open slightly inclined regional fold. The property is entirely underlain by Lower Jurassic, red and green volcanic conglomerates and sandstones of the Unuk River Formation. Middle Jurassic volcanic conglomerates, breccias, and crystal and lithic tuffs of the Betty Creek Formation unconformably overlay the Unuk River rocks immediately west of the property.

Faulting on the claim block is aligned parallel with the axial plane of the American Creek anticline and also crosscuts the stratigraphy near the north and south boundaries of the property.
MINFILE: 104A 007, 104A 009

Gala A.R. 17628 REPORT YEAR: 1988, 27 Pages, 3 Map(s)

OPERATOR(S): **Cremonese, D.M.**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Skeena
LOCATION: NTS 104A04W LAT. 56 06 00 LONG. 129 58 00
CLAIM(S): Gala 1,Solace 1
WORK DONE: EMAB 39.0 km;VLF - 2 Map(s); 1:10 000
MAGA 39.0 km - 1 Map(s); 1:10 000

GEOLOGY: The claims are underlain by Middle Jurassic Bowser assemblage greywackes, siltstones, and minor intercalated limestone and chert pebble conglomerate of the Salmon River Formation, unconformably overlying volcanic conglomerate, sandstone and minor breccia of the Betty Creek Formation. The Salmon River sedimentary rocks are found at lower elevations on the west side of the property and the Betty Creek volcaniclastics form the crest of Bear River Ridge (Mt. Bunting) on the east side of the property.

An augite diorite intrusive stock of Eocene age, similar in appearance to the Glacier Creek pluton 20 kilometres to the southeast, occurs in the northwest corner of the Gala 1 claim. The Portland Canal dyke swarm crosscuts the southern half of the claims. Granite, quartz monzonite, granodiorite and quartz diorite dykes of a few metres to 100 metres thick and up to 1000 metres long trend across the property in a northwest direction.

MINFILE: 104A 068

Joutel A.R. 17465 REPORT YEAR: 1988, 214 Pages, 55 Map(s)

OPERATOR(S): **Joutel Res.**
AUTHOR(S): Hall, B.V.
MINING DIV: Skeena
LOCATION: NTS 104A04W LAT. 56 07 00 LONG. 129 55 00
CLAIM(S): Jou,Tel,Redcliff,Montrose,Mount Lyell,Little Pat Fr.,Waterloo,Mac Fr.,Dot Fr.,Last Chance
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: DIAD 1007.0 m 6 hole(s);NQ - 4 Map(s);
GEOL 1000.0 ha - 5 Map(s); 1:500,1:2000
LINE 24.0 km
ROAD 3.5 km
ROCK 491 sample(s);CU,PB,ZN,AG,AS,AU - 33 Map(s); 1:500
SILT 11 sample(s);CU,PB,ZN,AG,AS,AU - 1 Map(s); 1:500
SOIL 709 sample(s);CU,PN,ZN,AG,AS,AU - 12 Map(s); 1:500
TREN 150.0 m

GEOLOGY: The mineralization is hosted by green and maroon mafic volcanic tuffs, breccias, agglomerates and flows of the Upper Triassic to Lower Jurassic Unuk River Formation. A total of seven mineralized zones occur on the property. The mineralization consists of veins of pyrite +/- chalcopyrite +/- sphalerite +/- galena. Most are surrounded by sericitic alteration and all are spatially related to late dykes.

MINFILE: 104A 037

Kelly Girl A.R. 17607 REPORT YEAR: 1988, 29 Pages, 3 Map(s)

OPERATOR(S): **Cremonese, D.M.**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Skeena
LOCATION: NTS 104A04W LAT. 56 12 00 LONG. 129 55 00
CLAIM(S): Kelly Girl 1-4
WORK DONE: EMAB 120.0 km; VLF - 2 Map(s); 1:10 000
MAGA 120.0 km - 1 Map(s); 1:10 000

GEOLOGY: The Kelly Girl 1-4 claims straddle the axis of the American Creek anticline: an open, slightly inclined regional fold of Unuk River, Hazelton assemblage, and Betty Creek, Bowser assemblage, volcanic, volcaniclastic and sedimentary rocks. The property is almost entirely underlain by Lower Jurassic, red and green volcanic conglomerates and sandstones of the Unuk River Formation. Middle Jurassic volcanic conglomerates, breccias, and crystal and lithic tuffs of the Betty Creek Formation unconformably overlie the Unuk River rocks along the west boundary of the property. A series of normal faults are aligned with the axial plane of the American Creek anticline. A major splay of these faults occurs near the north edge of the property from which a cross-cutting fault trends to the east.

MINFILE: 104A 076

Silver Crown A.R. 17609 REPORT YEAR: 1988, 28 Pages, 3 Map(s)

OPERATOR(S): **Cremonese, D.M.**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Skeena
LOCATION: NTS 104A04W LAT. 56 08 00 LONG. 129 57 00
CLAIM(S): Silver Crown 1-2,Silver Shoes 1-2
WORK DONE: EMAB 51.0 km; VLF - 2 Map(s); 1:10 000
MAGA 51.0 km - 1 Map(s); 1:10 000

GEOLOGY: Middle Jurassic Bowser assemblage greywackes, siltstones, and minor intercalated limestone and chert pebble conglomerate of the Salmon River Formation are unconformably overlain by volcanic conglomerate, sandstone and minor breccia of the Betty Creek Formation. The Salmon River sedimentary rocks form tight, northwest trending folds which thicken in sections toward the northwest. An augite diorite intrusive stock of Eocene age, similar in appearance to the Glacier Creek pluton 20 kilometres to the southeast, occurs in the southwest corner of the property. Mineralization on the property is confined to fissure veins within the Salmon River sedimentary rocks. Veining is locally controlled by northwest trending fracture zones.

MINFILE: 104A 010, 104A 068, 104A 090, 104A 091, 104A 098

Todd Creek A.R. 17423 REPORT YEAR: 1988, 159 Pages, 11 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): Baerg, R.J.
MINING DIV: Skeena
LOCATION: NTS 104A04W, 104A05W LAT. 56 13 29 LONG. 129 46 25
CLAIM(S): Toc 3-15
EXPL. TARGET: Copper,Gold
WORK DONE: DIAD 580.0 m 9 hole(s);NQ - 5 Map(s); 1:250
GEOL 1800.0 ha - 4 Map(s); 1:5000,1:250
HMIN 27 sample(s);CU,PB,ZN,AG,AU
ROCK 704 sample(s);ME - 2 Map(s); 1:5000,1:1000,1:250
SILT 35 sample(s);ME
SOIL 48 sample(s);ME

GEOLOGY: Copper-gold mineralization occurs in north trending hematitic quartz breccia veins and stockwork zones to 15 metres wide. Host rocks are siliceous feldspar porphyry volcanics of Jurassic age.

Gold values range up to 9.7 grams per tonne over 3 metres in trenches and 6.8 grams per tonne over 6.15 metres in drilling.
RELATED A.R.: 03248, 15988
MINFILE: 104A 001

AM A.R. 17665 REPORT YEAR: 1988, 22 Pages

OPERATOR(S): **Glacier Res.**
AUTHOR(S): Murton, J.W.
MINING DIV: Skeena
LOCATION: NTS 104A05W LAT. 56 17 00 LONG. 129 53 00
CLAIM(S): AM 3
EXPL. TARGET: Gold,Silver
WORK DONE: ROCK 23 sample(s);CU,PB,ZN,AG,AU,MN
SOIL 46 sample(s);CU,PB,ZN,AG,AU,MN
GEOLOGY: The property is underlain by Hazelton volcanics and sediments which have been intruded by stocks and tabular masses of granitic rocks. Extensive north-south faulting. Quartz veins in the area have been mineralized with gold, silver, copper, lead, zinc and manganese.

AM A.R. 16888 REPORT YEAR: 1987, 17 Pages

OPERATOR(S): **Glacier Res.**
AUTHOR(S): Murton, J.W.
MINING DIV: Skeena
LOCATION: NTS 104A05W LAT. 56 17 36 LONG. 129 52 40
CLAIM(S): AM 1
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: PITS 51 pit(s)
SAMP 69 sample(s);AU,AG
GEOLOGY: Lower Jurassic Hazelton Group volcanics are intruded by stocks and tabular masses of granitic rocks. Extensive north-south faulting is evident. North striking quartz veins are variably mineralized with gold, silver, copper, lead and zinc.
MINFILE: 104A

Bow A.R. 17477 REPORT YEAR: 1988, 67 Pages, 4 Map(s)

OPERATOR(S): **Brucejack Gold**
AUTHOR(S): Kruchkowski, E.R. Sinden, G. Konkin, K.
MINING DIV: Skeena
LOCATION: NTS 104A05W LAT. 56 23 00 LONG. 129 48 00
CLAIM(S): Bow 1-39
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: ROCK 114 sample(s);AU,AG
SILT 287 sample(s);AU,AG - 4 Map(s); 1:10 000
GEOLOGY: The Bow Claims are underlain by favourable gold and copper-bearing volcanic and sedimentary rocks of the Unuk River, Betty Creek and Salmon River formations, Hazelton Group. Pyrite, chalcopyrite and minor galena occur in quartz sulphide veins, quartz-carbonate-sericite-pyrite alteration zones, and shear zones.

Brucejack A.R. 17383 REPORT YEAR: 1988, 25 Pages, 1 Map(s)

OPERATOR(S): **Catear Res.**
AUTHOR(S): Kruchkowski, E.R. Sinden, G.
MINING DIV: Skeena
LOCATION: NTS 104A05W, 104B08E LAT. 56 28 47 LONG. 129 58 55
CLAIM(S): Brucejack 4-5
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 56.3 ha - 1 Map(s); 1:5000
ROCK 5 sample(s);AU,AG
SILT 5 sample(s);AU,AG
GEOLOGY: The showings are in altered andesites and sericite schists of the Middle Jurassic Betty Creek and Salmon River Formations. Pyrite is the only mineral known to be present.

Cow A.R. 17634 REPORT YEAR: 1988, 20 Pages, 3 Map(s)

OPERATOR(S): **Teuton Res.**
AUTHOR(S): Cremonese, D.M.
MINING DIV: Skeena
LOCATION: NTS 104A05W LAT. 56 22 00 LONG. 129 52 00
CLAIM(S): Cow 1-3
EXPL. TARGET: Copper,Gold,Silver,Lead,Zinc
WORK DONE: ROCK 34 sample(s);ME - 1 Map(s); 1:10 000
SILT 55 sample(s);ME - 2 Map(s); 1:10 000
GEOLOGY: Green, red, purple and black volcanic breccia, conglomerate, sandstone and siltstone of the Lower Jurassic Unuk River Formation are unconformably overlain, or in fault contact, with a similar suite of rocks belonging to the Middle Jurassic Betty Creek Formation, and intruded in places by leuco-granite stocks. Geochemistry suggests copper-gold and/or lead-zinc-silver minenralization.

Knip A.R. 17694 REPORT YEAR: 1988, 19 Pages

OPERATOR(S): **Crystal Cove Res.**
AUTHOR(S): Cremonese, D.M.
MINING DIV: Skeena
LOCATION: NTS 104A05W LAT. 56 24 14 LONG. 129 59 20
CLAIM(S): Knip
EXPL. TARGET: Silver,Lead,Zinc,Copper,Gold
WORK DONE: META 4 sample(s)
ROCK 14 sample(s);ME
GEOLOGY: Middle Jurassic rocks of the Betty Creek Formation overlie Lower Jurassic volcanics of the Unuk River Formation. Both units are cut by coarse-grained feldspar porphyry of Eocene age. Argentiferous quartz-sulphide veins are exposed in Betty Creek just north of Knipple Lake. The veins carry galena, sphalerite, chalcopyrite, pyrite and unknown silver sulphosalts.
RELATED A.R.: 14606, 16634
MINFILE: 104A 095

Knip A.R. 17897 REPORT YEAR: 1988, 57 Pages

OPERATOR(S): **Pennilane Dev.**
AUTHOR(S): Verley, C.G. Williams, S.P.
MINING DIV: Skeena
LOCATION: NTS 104A05W LAT. 56 24 40 LONG. 129 59 40
CLAIM(S): Knip
EXPL. TARGET: Lead,Zinc,Silver,Gold,Copper
WORK DONE: DIAD 335.6 m 4 hole(s);BQ
GEOLOGY: Middle Jurassic sediments, tuffs and volcanics of the Betty Creek Formation (Hazelton Group) underlie the claims. This sequence is intruded by Eocene feldspar porphyries. Steep dipping, northeast trending veins with lenses up to 1.5 metres wide contain galena,

sphalerite and chalcopyrite occur on the property.

RELATED A.R.: 14606, 16634, 17694

MINFILE: 104A 095

Virginia K A.R. 16842 REPORT YEAR: 1987, 19 Pages

OPERATOR(S): **McLeod, I.**

AUTHOR(S): Dick, D. McIntosh, R. Parkin, J.

MINING DIV: Skeena

LOCATION: NTS 104A05W LAT. 56 16 22 LONG. 129 52 23

CLAIM(S): Virginia K Extension 2,Virginia K 5

EXPL. TARGET: Silver

WORK DONE: GEOL 0.2 ha

ROCK 6 sample(s);AU,AG

GEOLOGY: Quartz-carbonate veins and fissures carrying values of lead, zinc and silver occur in Lower Jurassic Hazelton Group sediments. The sediments lie on the east limb of the open, gently north plunging American Creek Anticline which has been intruded by stocks, sills and dykes of quartz-feldspar porphyry.

MINFILE: 104A 006

ISKUT RIVER 104B

Big Missouri A.R. 16806 REPORT YEAR: 1987, 58 Pages

OPERATOR(S): **Westmin Res.**

AUTHOR(S): Dykes, S.

MINING DIV: Skeena

LOCATION: NTS 104B01E LAT. 56 06 42 LONG. 130 00 08

CLAIM(S): Pass Fr.,Golden Crown,Laura

EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc

WORK DONE: DIAD 393.8 m 11 hole(s);NQ

SAMP 54 sample(s);AU,AG,CU,PB,ZN

GEOLOGY: The property is underlain by a sequence of andesite agglomerates, tuffs and flows belonging to the Lower Jurassic Hazelton Group. Mineralization observed consists of fine-grained disseminated pyrite with or without sphalerite and galena contained mainly within cherty tuff horizons or as small sulphide stringers and veinlets within the andesite. These cherty tuff horizons are thin siliceous exhalative horizons which occur at the contact between individual andesite units.

MINFILE: 104B 046, 104B 086

Scottie Gold A.R. 17016 REPORT YEAR: 1987, 191 Pages, 2 Map(s)

OPERATOR(S): **Royal Scot Res.**

AUTHOR(S): Dick, D.

MINING DIV: Skeena

LOCATION: NTS 104B01E LAT. 56 13 00 LONG. 130 07 00

CLAIM(S): Prince 1-6,Prince Fr.,Summit Lake 1-6,Summit Lake 7 Fr.,Summit Lake 8,Royal 1-3,Scot 6-7, Scot 11

EXPL. TARGET: Gold

WORK DONE: SAMP 550 sample(s);AU,AG

UNDD 1589.0 m 18 hole(s); BQ - 2 Map(s); 1:480

GEOLOGY: A high grade gold vein complex occurs in mid-Jurassic volcano-conglomerates that have been locally intruded by a hornblende granodiorite stock of uncertain age.

RELATED A.R.: 10738, 12342

MINFILE: 104B 034

Summit Lake A.R. 16768 REPORT YEAR: 1987

OPERATOR(S): **Royal Scot Res.**

AUTHOR(S): Dick, D.

MINING DIV: Skeena

LOCATION: NTS 104B01E LAT. 56 14 00 LONG. 130 04 45

CLAIM(S): Scotty

WORK DONE: SAMP 198 sample(s);AU,AG

UNDD 1589.2 m 18 hole(s);BQ

GEOLOGY: Gold-bearing sulphide-rich quartz veins are hosted by the Lower Jurassic Unuk River Formation which is primarily comprised of a matrix supported breccia of andesitic composition with local occurrences of a fine-grained arenite.

RELATED A.R.: 10738, 12342

Tide A.R. 17894 REPORT YEAR: 1988, 51 Pages

OPERATOR(S): **Austral Pacific Gold**

AUTHOR(S): Sheldrake, R.

MINING DIV: Skeena

LOCATION: NTS 104B01E, 104B08E LAT. 56 15 00 LONG. 130 05 00

CLAIM(S): Tide,Low Tide,Tide 2,Berendon 2-5

EXPL. TARGET: Gold,Silver,Copper

WORK DONE: EMGR 16.0 km;HLEM

IPOL 16.0 km

MAGG 16.0 km

REST 16.0 km

GEOLOGY: The property is underlain by Jurassic Hazelton Group rocks consistinbg of argillaceous sediments, dacitic tuffs and andesitic fragmentals. The Summit Lake granodiorite stock intrudes these rocks. Gold and silver values in sulphides are widespread.

RELATED A.R.: 08656, 09687, 11528, 13072, 15410, 15626, 16198

MINFILE: 104B 251, 104B 252, 104B 253, 104B 254

Vancouver (Woodbine) A.R. 17151 REPORT YEAR: 1988, 156 Pages, 6 Map(s)

OPERATOR(S): **Westmin Res.**

AUTHOR(S): Murrell, M.R.

MINING DIV: Skeena

LOCATION: NTS 104B01E LAT. 56 03 37 LONG. 130 01 56

CLAIM(S): Vancouver 1-3,Woodbine 1 Fr.,PX Fr.

EXPL. TARGET: Gold,Silver,Zinc,Lead

WORK DONE: DIAD 2103.9 m 25 hole(s);NQ ,BQ - 6 Map(s); 1:25 000,1:2500,1:500

GEOLOGY: Andesite of the Lower Jurassic Hazelton Group covers most of the property. The Lower Jurassic Texas Creek Batholith granodiorite is coeval with the andesite and located west of the claims. Gold-silver mineralization at Silbak Premier and at Woodbine is within altered andesite, or siliceous breccia, or in sill offshoots of the Texas Creek Batholith. No significant mineralized body has yet been outlined on the subject claims.

RELATED A.R.: 07522

MINFILE: 104B 090

Candorada Stewart A.R. 16858 REPORT YEAR: 1987, 73 Pages, 4 Map(s)

OPERATOR(S): **Candorada Mines** **Teuton Res.**

AUTHOR(S): Hawkins, P.A.

MINING DIV: Skeena
LOCATION: NTS 104B07E, 104B10E, 104B10W LAT. 56 30 35 LONG. 130 42 13
CLAIM(S): Iliad 1-4,Homer 1-4,Priam 1-4,Menelaus 1-2,Patroclus 1-3,Nestor 1-4,Flory 1-4,Achilles 1-4, Ginny 1-4,Maxwell Smart,Agamemnon,Paris 1-4,Hector 1-4
WORK DONE: GEOL 9999.9 ha - 2 Map(s): 1:50 000
ROCK 111 sample(s):AU,AG - 1 Map(s): 1:50 000
SILT 78 sample(s):AU,AG - 1 Map(s): 1:50 000
GEOLOGY: The area of interest is underlain by rocks of the Stewart Complex, a belt of diverse rock types and complicated structure. The belt trends northwest between the Coast Plutonic Complex to the west and the Bowser sedimentary basin to the east. Rocks of the Stewart Complex were emplaced in Triassic-Jurassic times during repeated cycles of volcanism, sedimentation, plutonism, uplift and erosion.
MINFILE: 104B 009, 104B 013, 104B 080, 104B 096, 104B 097

Gold Boulder A.R. 17635 REPORT YEAR: 1988, 12 Pages, 1 Map(s)

OPERATOR(S): **Foerster, J.V.**
AUTHOR(S): Cremonese, D.M.
MINING DIV: Skeena
LOCATION: NTS 104B07E LAT. 56 20 11 LONG. 130 41 52
CLAIM(S): Gold Boulder 1-2
EXPL. TARGET: Gold,Lead,Zinc,Copper
WORK DONE: SILT 5 sample(s):ME - 1 Map(s): 1:5000
GEOLOGY: The property lies astride or is in close proximity to the contact between granodiorites of the Upper Cretaceous Coast Plutonic Complex and volcanics/sediments of Upper Triassic age. An old showing called the "Boulder Creek" prospect is reported to occur on the claims. It apparently hosts contact-related lead, zinc, gold and copper mineralization. No evidence of such showing was found.
MINFILE: 104B 102

Gold Unuk A.R. 17630 REPORT YEAR: 1988, 27 Pages, 3 Map(s)

OPERATOR(S): **Cremonese, D.M.**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Skeena
LOCATION: NTS 104B07E LAT. 56 24 30 LONG. 130 44 00
CLAIM(S): Gold Unuk 1-4
WORK DONE: EMAB 65.0 km;VLF - 2 Map(s): 1:10 000
MAGA 65.0 km - 1 Map(s): 1:10 000
GEOLOGY: The claims are situated on the intrusive contact of the Coast Plutonic Complex with Unuk River Formation volcaniclastic rocks. All of Gold Unuk 3 and 4 claims and the west half of Gold Unuk 1 and 2 claims are underlain by biotite granodiorite of Eocene age. Lower Jurassic volcanic breccia, conglomerate, sandstone, siltstone, and crystal and lithic tuff of the Unuk River Formation underlie the east half of Gold Unuk 1 and 2 claims. These rocks have been contact metamorphosed to hornfels along the granodiorite intrusive contact. Pleistocene and recent basaltic flows overlie all rock types in an area to the southeast of the property and part way up the valley floor of Canyon Creek.
MINFILE: 104B 098

Catspaw A.R. 17027 REPORT YEAR: 1988, 41 Pages, 1 Map(s)

OPERATOR(S): **Wedgewood Res.**
AUTHOR(S): Konkin, K. Kruchkowski, E.R.
MINING DIV: Skeena
LOCATION: NTS 104B08E LAT. 56 18 00 LONG. 130 06 00
CLAIM(S): Catspaw
EXPL. TARGET: Gold,Silver
WORK DONE: LINE 9.2 km
ROCK 271 sample(s):ME - 1 Map(s): 1:2500
SILT 46 sample(s):ME
SOIL 114 sample(s):ME
TREN 10.5 m 4 trench(es)
GEOLOGY: Jurassic volcanic tuffs, sedimentary and metamorphic units host auriferous and argentiferous pyrite, arsenopyrite and galena in brecciated quartz veins. Sericitic and chloritic alteration of the volcanics and sediments is evident. East striking, near vertically dipping phyllite, schist and semi-schist also occur.
RELATED A.R.: 08768
MINFILE: 104B 211

Delta A.R. 16911 REPORT YEAR: 1988, 27 Pages, 5 Map(s)

OPERATOR(S): **Teuton Res.**
AUTHOR(S): Cremonese, D.M.
MINING DIV: Skeena
LOCATION: NTS 104B08E LAT. 56 22 00 LONG. 130 07 00
CLAIM(S): Delta
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc,Antimony
WORK DONE: ROCK 211 sample(s);ME - 5 Map(s): 1:1000
GEOLOGY: Middle Jurassic sediments of the Salmon River Formation overlie Lower Jurassic volcanics and sediments of the Unuk River Formation. The sediments have been folded into synclines and anticlines with northerly trending fold axes. Small, Eocene feldspar porphyry intrusives outcrop in the northwest quadrant of the claim. Pyritic alteration zones cut across lithologies and carry quartz veins with sphalerite, galena, chalcopyrite, tetrahedrite and rare native gold. Highly argentiferous tetrahedrite mineralization is also evident. Stream, soil and rock geochemical anomalies (gold, silver, lead and zinc) suggest an as yet undetected source.
RELATED A.R.: 11716, 13403, 14607, 15645
MINFILE: 104B 166

Feld A.R. 16840 REPORT YEAR: 1987, 10 Pages, 1 Map(s)

OPERATOR(S): **Teuton Res.**
AUTHOR(S): Cremonese, D.M.
MINING DIV: Skeena
LOCATION: NTS 104B08E LAT. 56 21 58 LONG. 130 08 57
CLAIM(S): Feld 2
EXPL. TARGET: Gold,Silver
WORK DONE: SAMP 19 sample(s);ME
TREN 53.0 m 12 trench(es) - 1 Map(s): 1:500
GEOLOGY: A prominent gossan is exposed in the easternmost portion of the property. The general area is underlain by volcanic breccias, conglomerate, sandstone and siltstone of the Lower Jurassic Unuk River Formation. The altered zone (gossan) is composed of quartz-pyrite-carbonate-sericite altered tuffs featuring limonitic to hematitic weathering.

Gamma A.R. 17028 REPORT YEAR: 1988, 26 Pages, 2 Map(s)

OPERATOR(S): **Wedgewood Res.**
AUTHOR(S): Kruchkowski, E.R. Konkin, K.
MINING DIV: Skeena
LOCATION: NTS 104B08E LAT. 56 21 00 LONG. 130 08 00
CLAIM(S): **Gamma**
EXPL. TARGET: Silver,Gold
WORK DONE: ROCK 43 sample(s);ME - 2 Map(s); 1:5000,1:500
TREN 10.5 m 4 trench(es)

GEOLOGY: Lower Jurassic volcanic tuffs and sediments of the Unuk River Formation and Salmon River Formation host auriferous, pyritic, quartz-brecciated conglomerate and argentiferous tetrahedrite, galena and pyrite-bearing quartz veins. The strata strike 100-115 degrees and dip 20 degrees to the north-northeast.

RELATED A.R.: 15644
MINFILE: 104B 168

Goldwedge A.R. 16744 REPORT YEAR: 1987

OPERATOR(S): **Catear Res.**
AUTHOR(S): Kruchkowski, E.R.
MINING DIV: Skeena
LOCATION: NTS 104B08E LAT. 56 29 00 LONG. 130 12 12
CLAIM(S): Goldwedge 3
WORK DONE: DIAD 4107.6 m 43 hole(s);BQ
SAMP 853 sample(s);AU,AG

GEOLOGY: The claims cover an area of fragmental andesites and volcanically derived sedimentary rocks of the Lower Jurassic Unuk River Formation. All rocks in the area of interest have been pervasively altered to sericite schists with quartz stockworks and mineralized with pyrite, electrum, tetrahedrite, arsenopyrite, sphalerite, galena and pyragyrite.

RELATED A.R.: 10533

Red River-BJ A.R. 17166 REPORT YEAR: 1988, 462 Pages, 1 Map(s)

OPERATOR(S): **Newhawk Gold Mines**
AUTHOR(S): Hicks, K.E.
MINING DIV: Skeena
LOCATION: NTS 104B08E LAT. 56 28 00 LONG. 130 11 00
CLAIM(S): OK 3-8,Red River,Red River 6-7,Tedray,Xray 7-9
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 7884.5 m 71 hole(s); BQ - 1 Map(s); 1:2000
SAMP 7000 sample(s);AU,AG

GEOLOGY: The lower Jurassic Unuk River pyroclastic andesite is cut by fault-controlled quartz stockwork with quartz and sericite alteration. Mineralization consists of pyrite, tetrahedrite, sphalerite, galena, pyrargyrite, argentite, and electrum.

RELATED A.R.: 17133
MINFILE: 104B 190, 104B 193

Red River-Shore A.R. 17133 REPORT YEAR: 1988, 91 Pages, 1 Map(s)

OPERATOR(S): **Newhawk Gold Mines**
AUTHOR(S): Hicks, K.E.
MINING DIV: Skeena
LOCATION: NTS 104B08E LAT. 56 28 00 LONG. 130 11 00
CLAIM(S): Red River 2-5,Red River 8-11
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 1543.0 m 11 hole(s); BQ - 1 Map(s); 1:2000
SAMP 2000 sample(s);AU,AG

GEOLOGY: Lower Jurassic Unuk River Formation pyroclastic andesite is cut by fault-controlled quartz stockwork with quartz and sericite alteration. Mineralization consists of pyrite, tetrahedrite, sphalerite, galena, pyrargyrite, argentite, and electrum.

MINFILE: 104B 189

Stellar A.R. 17352 REPORT YEAR: 1988, 16 Pages, 3 Map(s)

OPERATOR(S): **Teuton Res.**
AUTHOR(S): Cremonese, D.M.
MINING DIV: Skeena
LOCATION: NTS 104B08E LAT. 56 24 07 LONG. 130 01 35
CLAIM(S): Rae,Stella,Linda
EXPL. TARGET: Gold,Silver,Lead,Zinc,Molybdenum/Molybdenite
WORK DONE: SILT 50 sample(s);ME - 3 Map(s); 1:5000

GEOLOGY: Lower Jurassic volcanic and sedimentary rocks of the Unuk River Formation are unconformably overlain by Middle Jurassic siltstones, greywackes and sandstones of the Salmon River Formation. Feldspar porphyry intrusions of possible Eocene age are also known to occur on the property. Double-plunging, northwesterly trending synclinal folds dominate the structural setting. Stream geochemistry suggests undetected molybdenite-lead-zinc (silver) and gold (silver) mineralization.

MINFILE: 104B 246

Bliss A.R. 17055 REPORT YEAR: 1988, 31 Pages, 3 Map(s)

OPERATOR(S): **Magna Ventures**
AUTHOR(S): Sandberg, T.
MINING DIV: Skeena
LOCATION: NTS 104B08W LAT. 56 19 07 LONG. 130 21 37
CLAIM(S): Bliss 1-4
EXPL. TARGET: Gold,Silver
WORK DONE: ROCK 4 sample(s);AU,AG,PB,ZN,CU,AS,SB
SOIL 294 sample(s);AU,AG,PB,ZN,CU,AS,SB - 3 Map(s); 1:10 000

GEOLOGY: The property is underlain by Lower Jurassic Unuk River Formation andesitic flows, tuffs, associated sediments and metamorphosed equivalents. The only known mineral occurrence on the property is the recently discovered TK vein, a galena-rich quartz vein carrying significant gold and silver values.

MINFILE: 104B 087

Corey A.R. 17404 REPORT YEAR: 1988, 79 Pages, 7 Map(s)

OPERATOR(S): **Bighorn Dev.**
AUTHOR(S): Kruchkowski, E.R. Sinden, G.
MINING DIV: Skeena
LOCATION: NTS 104B08W, 104B09W LAT. 56 27 32 LONG. 130 25 32
CLAIM(S): Corey 2-14,Corey 16,Corey 20,Corey 23-24,Corey 27-28,Corey 31-44
EXPL. TARGET: Gold,Silver,Zinc
WORK DONE: ROCK 386 sample(s);AU,AG - 4 Map(s); 1:1000
SILT 255 sample(s);AU,AG - 3 Map(s); 1:10 000

GEOLOGY: The showings are located in altered andesites, sericite schists and quartz stockworks of the Lower Jurassic Unuk River and Middle Jurassic Salmon River Formations. Mineralization consists of chalcopyrite, pyrite, sphalerite, galena and arsenopyrite with native gold.

MINFILE: 104B 229, 104B 232, 104B 233, 104B 235, 104B 236, 104B 240

Cumberland A.R. 17205 REPORT YEAR: 1988, 138 Pages, 6 Map(s)

OPERATOR(S): **Bighorn Dev.**
AUTHOR(S): Horne, E.J.
MINING DIV: Skeena
LOCATION: NTS 104B08W LAT. 56 29 26 LONG. 130 28 34
CLAIM(S): Cumberland (L.265),Ougma (L.269),Silver Pine (L.266),Corey 28-29
EXPL. TARGET: Gold,Silver,Copper,Zinc,Lead,Barium/Barite
WORK DONE:
DIAD 590.1 m 6 hole(s);BQ - 4 Map(s); 1:240,1:100
GEOL 55.0 ha - 1 Map(s); 1:500
LINE 2.1 km
ROCK 72 sample(s);AU,AG
SAMP 363 sample(s);AU,AG
SILT 10 sample(s);AU,AG - 1 Map(s); 1:2500
SOIL 182 sample(s);AU,AG
TREN 10.0 m 3 trench(es)

GEOLOGY: Andesitic-dacitic fragmentals of the Lower Jurassic Unuk River Formation are intruded by Middle Jurassic syenodiorites and gabbro. Mineralization is related to quartz stockwork and carbonate stockwork and consists of pyrite, sphalerite and tetrahedrite. Sericitic alteration has also been encountered.

MINFILE: 104B 011

Divel A.R. 17056 REPORT YEAR: 1988, 35 Pages, 3 Map(s)

OPERATOR(S): **Magna Ventures**
AUTHOR(S): Sandberg, T.
MINING DIV: Skeena
LOCATION: NTS 104B08W LAT. 56 21 00 LONG. 130 22 00
CLAIM(S): Divel 1-4
EXPL. TARGET: Gold,Silver
WORK DONE: SOIL 488 sample(s);AU,AG,CU,PB,ZN,AS,SB - 3 Map(s); 1:10 000

GEOLOGY: The property is underlain by Lower Jurassic Unuk River Formation andesitic flows and tuffs and associated sedimentary rocks, and Cretaceous-Tertiary granodiorites. No known mineralization occurs on the property.

Doc A.R. 16708 REPORT YEAR: 1987

OPERATOR(S): **Magna Ventures**
AUTHOR(S): Aelicks, B.T. Cooke, B.J. Sandberg, T.
MINING DIV: Skeena
LOCATION: NTS 104B08W LAT. 56 20 21 LONG. 130 26 56
CLAIM(S): Doc 4,Greg,Greg 2-4,Alf,Alf 2-3,Hil 4-5
WORK DONE:
GEOL 100.0 ha
RECL
ROCK 269 sample(s);AG,AS,CU,PB,SB,ZN,AU
SOIL 1378 sample(s);AG,AS,CU,PB,SB,ZN,AU
UNDD 694.3 m 8 hole(s);BQ
UNDV 376.4 m

GEOLOGY: The property is underlain predominantly by interbedded andesite, tuff, greywacke and limestone of the Lower Jurassic Unuk River Formation intruded by diorite, granite, aplite and lamprophyre bodies. Major northwest trending structures host gold-silver mineralization in quartz veins.

RELATED A.R.: 05239, 05512, 08925, 15615

Nurse A.R. 16910 REPORT YEAR: 1988, 19 Pages, 3 Map(s)

OPERATOR(S): **Teuton Res.**
AUTHOR(S): Cremonese, D.M.
MINING DIV: Skeena
LOCATION: NTS 104B08W, 104B01W LAT. 56 15 00 LONG. 130 24 00
CLAIM(S): Nurse,Clara 4
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE:
GEOL 100.0 ha - 1 Map(s); 1:5000
SAMP 19 sample(s);ME - 2 Map(s); 1:5000

GEOLOGY: The property is underlain by sediments and thinly bedded andesitic green tuffs probably of the Lower Jurassic Unuk River Formation. Secondary biotite and quartz and mild propylitic alteration suggest an intrusive at depth - probably a quartz monzonite. Two quartz veins, which contain lenses of massive galena with lesser pyrite, sphalerite and chalcopyrite, outcrop in a cliff face south of the Leduc Glacier. Base metal values are accompanied by significant values in silver and gold.

MINFILE: 104B 342

TR A.R. 16839 REPORT YEAR: 1987, 33 Pages, 3 Map(s)

OPERATOR(S): **Teuton Res.**
AUTHOR(S): Cremonese, D.M.
MINING DIV: Skeena
LOCATION: NTS 104B09E LAT. 56 35 03 LONG. 130 10 36
CLAIM(S): TR 4-5,TR 8
EXPL. TARGET: Gold,Silver,Copper
WORK DONE:
DIAD 61.1 m 1 hole(s);BQ
GEOL 250.0 ha - 2 Map(s); 1:5000,1:100
ROCK 47 sample(s);ME - 1 Map(s); 1:5000
SAMP 41 sample(s);ME
SILT 3 sample(s);AU,AG

GEOLOGY: Rocks consist of weak to moderately altered crystal-lithic tuffs, intensely altered crystal-lithic andesite tuffs, sericite schist, dolomite, limestone, quartzite, pillow lavas, red, purple, green volcanic breccias and porphyritic flows with minor chert thought to be of Lower-Middle Jurassic age. Highly auriferous mineralization is associated with quartz-calcite veinlets, consisting of pyrite, chalcopyrite, malachite, azurite and limonite in a dolomitic lithic tuff host was discovered in a skarn zone on the TR 8 claim. Auriferous mineralization was also discovered associated with sericite schists.

MINFILE: 104B 100

TR A.R. 16841 REPORT YEAR: 1987, 23 Pages, 3 Map(s)

OPERATOR(S): **Teuton Res.**
AUTHOR(S): Cremonese, D.M.
MINING DIV: Skeena
LOCATION: NTS 104B09E LAT. 56 35 16 LONG. 130 08 03
CLAIM(S): Treaty,TR 1-3,TR 6-7
EXPL. TARGET: Gold,Silver
WORK DONE:
ROCK 71 sample(s);ME - 3 Map(s); 1:5000
SILT 53 sample(s);ME

GEOLOGY: Thick Upper Triassic Nass Formation sediments overlie Middle-Lower Jurassic thinly banded siltstones, volcanic conglomerates, volcanic breccias, volcanic sandstones, andesitic flows and minor rhyodacite flows of the Unuk River Formation and the Betty Creek Formation (the former at the bottom of the sequence). Widespread alteration zones contain pervasive pyrite mineralization. Gold (silver) mineralization is indicated by silt and rock geochemical sampling.
MINFILE: 104B 078

Treaty A.R. 17798 REPORT YEAR: 1988, 46 Pages, 3 Map(s)

OPERATOR(S): **Bighorn Dev.**
AUTHOR(S): Konkin, K.
MINING DIV: Skeena
LOCATION: NTS 104B09E LAT. 56 36 57 LONG. 130 04 38
CLAIM(S): Stan 1-4,Treaty 4,Treaty 6-7
EXPL. TARGET: Gold,Silver
WORK DONE: ROCK 33 sample(s);AU,AG,PB,ZN,AS
SILT 288 sample(s);AU,AG,PB,ZN,AS - 3 Map(s); 1:5000
GEOLOGY: The claims are underlain by Middle Jurassic Salmon River Formation sediments and Betty Creek Formation volcanics with potential zones of schists, semi-schist and cataclastics with precious metal mineralization.
RELATED A.R.: 16250

Unuk A.R. 17087 REPORT YEAR: 1987, 103 Pages, 8 Map(s)

OPERATOR(S): **True North Min.**
AUTHOR(S): Christenson, L. Yacoub, F.F.
MINING DIV: Skeena
LOCATION: NTS 104B09E, 104B09W LAT. 56 32 52 LONG. 130 19 42
CLAIM(S): Unuk 1-19,Unuk 21-30,Unuk 34,Unuk 36-37,Unuk 44
EXPL. TARGET: Gold
WORK DONE: GEOL 7500.0 ha - 2 Map(s); 1:10 000
ROCK 143 sample(s);ME
SILT 163 sample(s);ME - 4 Map(s); 1:10 000
SOIL 136 sample(s);ME - 2 Map(s); 1:5000
GEOLOGY: Lower Jurassic Unuk River Formation andesite, volcanic breccia and conglomerate are in contact with Middle Jurassic Salmon River Formation argillite, greywacke, limestone and siltstone. Four mineralized zones consisting mainly of pyrite (up to 60 per cent) with lesser chalcopyrite and galena have been discovered. Alteration minerals consist up sericite, chlorite, and silica.
MINFILE: 104B 081

VR A.R. 17217 REPORT YEAR: 1988, 21 Pages, 1 Map(s)

OPERATOR(S): **Teuton Res.**
AUTHOR(S): Cremonese, D.M.
MINING DIV: Skeena
LOCATION: NTS 104B09E LAT. 56 37 58 LONG. 130 13 59
CLAIM(S): VR 1-2,VR 4-6
EXPL. TARGET: Copper,Gold
WORK DONE: ROCK 35 sample(s);ME - 1 Map(s); 1:5000
SILT 41 sample(s);ME
GEOLOGY: Cyclic siltstones, conglomerate and sandstone, primarily of the Lower Jurassic Unuk River and Betty Creek Formations, strike northwest across the property. Stream geochemistry shows elevated gold and copper values at one locality. A hornblende and feldpsar porphyritic andesite outcrops in the eastern portion of the property.

Coul A.R. 17203 REPORT YEAR: 1988, 93 Pages, 9 Map(s)

OPERATOR(S): **Bayridge Min.**
AUTHOR(S): Lyman, D.A.
MINING DIV: Skeena
LOCATION: NTS 104B09W LAT. 56 33 00 LONG. 130 29 00
CLAIM(S): Coul,Bou,Icey,Knip,Irv
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 2500.0 ha - 3 Map(s); 1:10 000
ROCK 58 sample(s);ME
SILT 35 sample(s);ME
SOIL 1051 sample(s);ME - 6 Map(s); 1:10 000,1:5000
GEOLOGY: The underlying rocks are Lower Jurassic Unuk River Formation sediments and Upper Triassic Takla Group volcanics, Middle Jurassic Salmon River volcaniclastics, and quartz plagioclase sericite schist. Mineralization appears to be structurally controlled within north-north-easterly trending fault zones and cross faults. Mineralization includes fine to medium grained pyrite in veins and disseminations, arsenopyrite and chalcopyrite.

Lance A.R. 17626 REPORT YEAR: 1988, 25 Pages, 3 Map(s)

OPERATOR(S): **Cremonese, D.M.**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Skeena
LOCATION: NTS 104B09W LAT. 56 38 00 LONG. 130 19 00
CLAIM(S): Lance 1-4
WORK DONE: EMAB 78.0 km;VLF - 2 Map(s); 1:10 000
MAGA 78.0 km - 1 Map(s); 1:10 000
GEOLOGY: The claims straddle a regional northeast trending and plunging syncline of Middle Jurassic Salmon River and Betty Creek Formations of volcanic and sedimentary rocks. The Salmon River Formation underlies the majority of the claims. The formation is mapped as siltstone, greywacke, sandstone, argillite, conglomerate and littoral deposits. The Middle Jurassic Betty Creek Formation underlies the Salmon River sedimentary sequence and forms a band which besects the property from the southwest to the northeast. The formation is mapped as green, red, purple and black volcanic breccias, conglomerates, sandstones and siltstones. The Unuk River Formation is found in the southwest corner of the Lance 3 claim. The Unuk River Formation is mapped as green, red and purple volcanic breccias, conglomerates and sandstones. Two faults are mapped along the eastern edge of the claims, one trends west and the other northwest.

Unuk A.R. 18187 REPORT YEAR: 1988, 96 Pages, 4 Map(s)

OPERATOR(S): **True North Min.**
AUTHOR(S): Adamec, J.D.
MINING DIV: Skeena
LOCATION: NTS 104B09W, 104B10E LAT. 56 35 00 LONG. 130 20 00
CLAIM(S): Unuk 1-34
EXPL. TARGET: Gold,Silver
WORK DONE: ROCK 214 sample(s);AU,AG,CU,PB,ZN,NI,AS
SILT 46 sample(s);AU,AG,CU,PB,ZN,NI,AS
SOIL 435 sample(s);AU,AG,CU,PB,ZN,NI,AS - 4 Map(s); 1:10 000

GEOLOGY: The area is predominantly underlain by volcanic breccia, conglomerate, sandstone and siltstone of the Lower Jurassic Unuk River Formation, as well as siltstone, greywacke, argillite and minor limestone of the Middle Jurassic Salmon River Formation. Several gossan zones were observed. Mineralization is found as fine grained disseminations consisting mainly of pyrite, with rare chalcopyrite and galena.

RELATED A.R.: 17087

Cam A.R. 17129 REPORT YEAR: 1988, 183 Pages, 9 Map(s)

OPERATOR(S): **Northwest Gold Synd. Kestrel Res.**
AUTHOR(S): Todoruk, S.L. Ikona, C.K.
MINING DIV: Liard
LOCATION: NTS 104B10E, 104B10W LAT. 56 36 38 LONG. 130 47 48
CLAIM(S): Cam 1-4,Cam 7-8
WORK DONE: EMAB 119.6 km;VLF - 5 Map(s); 1:20 000
FOTO 6000.0 ha - 2 Map(s); 1:10 000
MAGA 119.6 km - 2 Map(s); 1:20 000

GEOLOGY: The claims appear to be predominantly underlain by Lower Jurassic Unuk River Formation volcanic and sedimentary rocks. Two small diorite-granodiorite plugs and a similar sized feldspar porphyry syenite plug occurs on the property. North and northeast structures transect the claims.

E&L A.R. 17059 REPORT YEAR: 1988, 28 Pages, 4 Map(s)

OPERATOR(S): **Cons. Silver Standard Mines**
AUTHOR(S): Hermary, R.G. White, G.E.
MINING DIV: Liard
LOCATION: NTS 104B10E LAT. 56 35 00 LONG. 130 40 00
CLAIM(S): E&L 1-41
EXPL. TARGET: Copper,Nickel,Iron
WORK DONE: EMAB 100.0 km; VLF - 2 Map(s); 1:10 000
GEOL 4.0 ha - 1 Map(s); 1:600
MAGA 100.0 km - 1 Map(s); 1;10 000

GEOLOGY: The E and L property is underlain by andesitic tuffs and breccias, argillites and cherts assigned to the Jurassic Hazelton volcanic and sedimentary sequence. These rocks trend northwesterly with a steep to vertical southwesterly dip. At Nickel Mountain, the Hazelton sequence is intruded by an olivine gabbro stock which is part of an east-west trending, intermittently exposed mile-long belt of gabbros. These rocks in turn are bounded by large granite masses. The geology is further complicated by at least one major fault and several dykes.

MINFILE: 104B 006

Joy A.R. 17132 REPORT YEAR: 1988, 189 Pages, 9 Map(s)

OPERATOR(S): **Northwest Gold Synd. Kestrel Res.**
AUTHOR(S): Todoruk, S.L. Ikona, C.K.
MINING DIV: Liard
LOCATION: NTS 104B10E, 104B10W, 104B15W LAT. 56 43 38 LONG. 130 50 37
CLAIM(S): Joy 3-10,Joy 13-14,JP 2
WORK DONE: EMAB 220.0 km;VLF - 5 Map(s); 1:20 000
FOTO 5500.0 ha - 2 Map(s); 1:10 000
MAGA 220.0 km - 2 Map(s); 1:20 000

GEOLOGY: The claims appear to be predominantly underlain by Lower Jurassic Unuk River Formation volcanic and sedimentary rocks. Cenozoic basalt flows occur along the Iskut River in the southeast corner of the Joy 10. On the Joy 3, 4, 7 and 8 claims, a strong lineament orientation trends 070 degrees.

Paradigm A.R. 17625 REPORT YEAR: 1988, 27 Pages, 3 Map(s)

OPERATOR(S): **Cremonese, D.M.**
AUTHOR(S): Woods, D.V. Hermary, R.G.
MINING DIV: Skeena
LOCATION: NTS 104B10E LAT. 56 36 00 LONG. 130 34 00
CLAIM(S): Paradigm 1-2
WORK DONE: EMAB 27.0 km;VLF - 2 Map(s); 1:10 000
MAGA 27.0 km - 1 Map(s); 1:10 000

GEOLOGY: The Paradigm 1-2 claims are underlain by three distinct north trending geological units. The Unuk River Formation consisting of green, red and purple volcanic breccias, conglomerates, sandstones and siltstones east of Harrymel Creek; Upper Triassic Takla Group(?) sedimentary siltstone, sandstone, conglomerate and limestone west of Harrymel Creek, and; Upper Triassic and younger(?) plutonic rocks of hornblende quartz diorite forming the high ridges on the west side of the property. Pleistocene and recent basalt flows from the Cinder Mountain volcanic centre to the southwest of the property are also found in a limited area on the valley floor of the ablating Copper King Glacier. The structure of the property is dominated by north-east trending synclinal formations to the northeast and north trending faults on the west side of Harrymel Creek.

MINFILE: 104B 007

Cam A.R. 18076 REPORT YEAR: 1988, 47 Pages, 3 Map(s)

OPERATOR(S): **Gigi Res.**
AUTHOR(S): King, G.R. Demczuk, L.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 38 00 LONG. 130 51 30
CLAIM(S): Cam 5-6
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: GEOL 750.0 ha - 1 Map(s); 1:5000
ROCK 59 sample(s);AU,AG,CU,PB,ZN,AS,SB - 1 Map(s); 1:500
SOIL 124 sample(s);AU,AG,CU,PB,ZN,AS,SB - 1 Map(s); 1:5000

GEOLOGY: The property lies within the western-most part of the Intermontane Tectonic Belt, close to the Coast Crystalline Tectonic Belt. Property is underlain by plutonic rocks, although argillites and limestones outcrop near the eastern and western boundaries. Silver and base metal occurrences have been associated with skarns.

RELATED A.R.: 16956
MINFILE: 104B

Cam A.R. 16955 REPORT YEAR: 1987, 83 Pages, 4 Map(s)

OPERATOR(S): **Norman Res.**
AUTHOR(S): King, G.R.
MINING DIV: Liard
LOCATION: NTS 104B10W, 104B10E LAT. 56 39 45 LONG. 130 45 35
CLAIM(S): JP 3-4,Cam 9-10
EXPL. TARGET: Copper,Zinc,Silver,Gold
WORK DONE: GEOL 1600.0 ha - 1 Map(s); 1:5000
HMIN 5 sample(s);AU,AG,AS,SB,CU,PB,ZN
ROCK 120 sample(s);AU,AG,AS,SB,CU,PB,ZN

SILT 32 sample(s);AU,AG,AS,SB,CU,PB,ZN
SOIL 101 sample(s);AU,AG,AS,SB,CU,PB,ZN - 3 Map(s); 1:5000

GEOLOGY: The claims are underlain by Stewart Complex granitic-granodioritic intrusives, limestones, argillites and occasional intermediate volcanics. Mineralization occurs as pods of massive sulphides within skarns.

MINFILE: 104B 326, 104B 327

Cam A.R. 16956 REPORT YEAR: 1987, 68 Pages, 4 Map(s)

OPERATOR(S): **Gigi Res.**
AUTHOR(S): King, G.R.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 39 29 LONG. 130 51 10
CLAIM(S): Cam 5-6
EXPL. TARGET: Gold
WORK DONE: GEOL 750.0 ha - 1 Map(s); 1:5000
HMIN 3 sample(s);AU,AG,AS,SB,CU,PB,ZN
ROCK 27 sample(s);AU,AG,AS,SB,CU,PB,ZN
SILT 10 sample(s);AU,AG,AS,SB,CU,PB,ZN
SOIL 105 sample(s);AU,AG,AS,SB,CU,PB,ZN - 3 Map(s); 1:5000

GEOLOGY: Stewart Complex argillites and limestones are intruded by felsic-intermediate plutonic rocks. Recent basalts occur adjacent to Snippaker Creek.

Cam A.R. 18085 REPORT YEAR: 1988, 69 Pages, 2 Map(s)

OPERATOR(S): **Pezgold Res.**
AUTHOR(S): King, G.R. Demczuk, L.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 38 00 LONG. 130 45 30
CLAIM(S): Cam 7-8
EXPL. TARGET: Gold,Silver,Lead,Copper,Zinc
WORK DONE: GEOL 1000.0 ha - 1 Map(s); 1:5000
ROCK 227 sample(s);AU,AG,AS,CU,PN,ZN,SB - 1 Map(s); 1:5000
SOIL 75 sample(s);AU,AG,AS,CU,PB,ZN,SB

GEOLOGY: The property lies within the western-most part of the Intermontane Tectonic Belt, close to the Coast Crystalline Tectonic Belt. The property is underlain by plutonic rocks, limestones, argillites, and minor volcanic rocks. Gold, silver and base metals are hosted in skarns and shear zones.

Ger A.R. 17136 REPORT YEAR: 1988, 49 Pages, 1 Map(s)

OPERATOR(S): **Jazzman Res.**
AUTHOR(S): Todoruk, S.L.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 34 00 LONG. 130 56 00
CLAIM(S): Ger 1-3
EXPL. TARGET: Gold
WORK DONE: GEOL 400.0 ha - 1 Map(s); 1:10 000
ROCK 56 sample(s);ME
SOIL 63 sample(s);ME

GEOLOGY: The Ger 1-3 mineral claims appear to be underlain by Mesozoic Unuk River Formation volcanic and sedimentary rocks comprising mainly greywacke, siltstone and argillite. The country rocks are cut by felsic to feldspar porphyry dykes. A large diorite-granodiorite pluton is situated on the Ger 2 claim.

Gim A.R. 17127 REPORT YEAR: 1988, 57 Pages, 2 Map(s)

OPERATOR(S): **Kyle Res.**
AUTHOR(S): Todoruk, S.L. Ikona, C.K.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 39 49 LONG. 130 53 52
CLAIM(S): Gim
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc,Tungsten
WORK DONE: GEOL 156.0 ha - 1 Map(s); 1:5000
ROCK 38 sample(s);ME
SOIL 91 sample(s);ME - 1 Map(s); 1:5000

GEOLOGY: The claim is underlain by Lower Jurassic Unuk River Formation andesite-andesite agglomerate. Minor occurrences of Paleozoic limestone are found in the central parts of the claim. In the northwest corner of the property narrow quartz veining with massive pyrite and visible gold have produced assays up to 127.1 grams per tonne gold. Quartz veining in the centre of the claim block has produced anomalous values in copper, lead, zinc, iron, arsenic and silver with low gold values.

MINFILE: 104B 292, 104B 293

Gossan A.R. 16892 REPORT YEAR: 1987, 35 Pages, 4 Map(s)

OPERATOR(S): **Western Can. Min.**
AUTHOR(S): Butterworth, B.P. Petersen, D.B.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 33 48 LONG. 130 51 06
CLAIM(S): Gossan 1-5,Gossan 7-8,Gossan 22,Gossan 25
EXPL. TARGET: Copper,Lead,Zinc
WORK DONE: GEOL 625.0 ha - 1 Map(s); 1:10 000
ROCK 52 sample(s);ME
SILT 29 sample(s);ME - 1 Map(s); 1:10 000
SOIL 139 sample(s);ME - 2 Map(s); 1:5000

GEOLOGY: The claims are underlain by a belt of rocks described by Grove (1971) as the Stewart Complex. The complex consists of an undivided group of southeasterly dipping sedimentary and volcanic rocks of Upper Triassic and Lower Triassic age which are intruded by Middle Mesozoic marginal phases of the Coast Range Intrusions. Mineralization in the area consists of sphalerite, galena, pyrite and chalcopyrite as massive sulphide and quartz-sulphide veins infilling fractures and shear zones in the volcano-sedimentary succession adjacent to intrusive contacts.

MINFILE: 104B 117

Gossan A.R. 16727 REPORT YEAR: 1987

OPERATOR(S): **Western Can. Min.**
AUTHOR(S): Petersen, D.B. Butterworth, B.P.
MINING DIV: Liard
LOCATION: NTS 104B10W, 104B11E LAT. 56 35 39 LONG. 130 57 50
CLAIM(S): Gossan 1-17,Gossan 21-23,Gossan 30
WORK DONE: DIAD 2213.0 m 17 hole(s);NQ
GEOL 3000.0 ha
PETR 2 sample(s)
ROCK 424 sample(s);ME
SAMP 755 sample(s);ME
SILT 147 sample(s);ME
SOIL 1284 sample(s);ME

TREN 100.0 m 2 trench(es)
GEOLOGY: A sequence of regionally altered intermediate-felsic pyroclastic volcanic rocks and tuffaceous sedimentary rocks are intruded by a diverse suite of intrusive rocks. Pyrite and galena-sphalerite-chalcopyrite sulphide veins and disseminations are widespread.
RELATED A.R.: 03981, 03982, 04748, 04749, 05142, 05752, 06030

Gossan A.R. 16931 REPORT YEAR: 1987, 91 Pages, 14 Map(s)

OPERATOR(S): **Western Can. Min.**
AUTHOR(S): Butterworth, B.P. Petersen, D.B.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 34 49 LONG. 130 56 32
CLAIM(S): Gossan 9-13
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: GEOL - 3 Map(s); 1:2500,1:500
ROCK 304 sample(s);ME - 1 Map(s); 1:2500
SILT 23 sample(s);ME - 2 Map(s); 1:10 000
SOIL 903 sample(s);ME - 8 Map(s); 1:2500
GEOLOGY: The claims are underlain by a belt of rocks described by Grove (1971) as the Stewart Complex. The complex consists of an undivided group of southwesterly dipping sedimentary and volcanic rocks of Upper Triassic and Lower Jurassic age, which are intruded by Middle Mesozoic marginal phases of the Coast Plutonic Complex. Mineralization in the area consists of chalcopyrite, sphalerite, galena, and pyrite as massive sulphide and quartz-sulphide veins in sedimentary hornfels and pyrometasomatized pyroclastic rocks.
MINFILE: 104B 138

Hag A.R. 17130 REPORT YEAR: 1988, 91 Pages, 8 Map(s)

OPERATOR(S): **Northwest Gold Synd. Kestrel Res.**
AUTHOR(S): Todoruk, S.L.
MINING DIV: Liard
LOCATION: NTS 104B10W, 104B11E LAT. 56 33 34 LONG. 131 04 10
CLAIM(S): Hag 1,Hag 3,Hag 5-7
WORK DONE: EMAB 99.0 km;VLF - 5 Map(s); 1:20 000
FOTO 5000.0 ha - 1 Map(s); 1:10 000
MAGA 99.0 km - 2 Map(s); 1:20 000
GEOLOGY: The claims are underlain by pre-Permian metamorphosed sediments, Permian crinoidal limestone and Lower Jurassic Hazelton Group volcanic and sedimentary rocks.

Ian A.R. 16953 REPORT YEAR: 1987, 54 Pages, 4 Map(s)

OPERATOR(S): **Ashburton Oil**
AUTHOR(S): King, G.R.
MINING DIV: Liard
LOCATION: NTS 104B10W, 104B11E LAT. 56 42 47 LONG. 130 58 16
CLAIM(S): Ian 1-4
EXPL. TARGET: Copper,Zinc,Silver,Gold
WORK DONE: GEOL 1600.0 ha - 1 Map(s); 1:5000
HMIN 2 sample(s);AG,AS,CU,PB,SB,ZN,AU
ROCK 36 sample(s);AG,AS,CU,PB,SB,ZN,AU - 3 Map(s); 1:5000
SILT 18 sample(s);AG,AS,CU,PB,SB,ZN,AU
GEOLOGY: Stewart Complex felsic-intermediate volcanics, argillites and limestones are intruded by a few minor igneous bodies. There is a chalcopyrite-sphalerite showing in skarn and in a shear zone in silicified argillite.
MINFILE: 104B 324

Ian A.R. 18086 REPORT YEAR: 1988, 101 Pages, 21 Map(s)

OPERATOR(S): **Pezgold Res.**
AUTHOR(S): King, G.R.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 43 00 LONG. 130 53 00
CLAIM(S): Ian 6,Ian 8
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: EMGR 7.2 km;VLF - 8 Map(s); 1:5000
GEOL 1000.0 ha - 2 Map(s); 1:2500,1:5000
MAGG 7.2 km - 2 Map(s); 1:5000
ROCK 138 sample(s);AU,AG,CU,PB,ZN,AS,SB
SOIL 332 sample(s);AU,AG,CU,PB,ZN,AS,SB - 9 Map(s); 1:2500
GEOLOGY: The property lies within the western-most part of the Intermontane Tectonic Belt close to the Coast Crystalline Tectonic Belt. The property is underlain by plutonic and volcanic rocks of intermediate to mafic composition, limestones and argillites.
RELATED A.R.: 17149

Ian A.R. 17149 REPORT YEAR: 1987, 67 Pages, 4 Map(s)

OPERATOR(S): **Vanstates Res.**
AUTHOR(S): King, G.R.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 43 00 LONG. 130 53 00
CLAIM(S): Ian 6,Ian 8
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold
WORK DONE: GEOL 500.0 ha - 1 Map(s); 1:5000
PETR 1 sample(s)
PROS 500.0 ha
ROCK 117 sample(s);AU,AG,AS,SB,CU,PB,ZN - 3 Map(s); 1:5000
SILT 31 sample(s);AU,AG,AS,SB,CU,PB,ZN
SOIL 41 sample(s);AU,AG,AS,SB,CU,PB,ZN
GEOLOGY: The Stewart Complex of intermediate volcanics, argillites, and limestones is intruded by a major stock of granitic to granodioritic composition, and other minor intrusives of variable composition. Epidotization is pervasive. Sulphide mineralization was found occasionally in shear zones and skarn horizons.
MINFILE: 104B 325

Inel A.R. 18062 REPORT YEAR: 1988, 41 Pages, 1 Map(s)

OPERATOR(S): **Inel Res.**
AUTHOR(S): Grove, E.W.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 36 42 LONG. 130 57 30
CLAIM(S): Inel 2
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: DIAD 196.1 m 3 hole(s); BQ - 1 Map(s); 1:1000
SAMP 35 sample(s);AU,AG,CU,PB,ZN
GEOLOGY: The underlying country rocks include a layered Unuk River Formation sequence comprising basal rhyolitic breccias, flows and clastic sediments, andesitic volcaniclastics, conglomerates, minor limestones and intercalated basalt flows and breccias. Sulphide-gold mineralization has been superposed upon older stratabound gold, silver, lead, zinc, copper mineralization along basalt lava -

sediment boundaries.
RELATED A.R.: 03980, 04732, 05274, 08997, 11312, 18062
MINFILE: 104B 113

JP A.R. 18084 REPORT YEAR: 1988, 103 Pages, 10 Map(s)

OPERATOR(S): **Norman Res.**
AUTHOR(S): King, G.R. Demczuk, L.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 39 00 LONG. 130 47 00
CLAIM(S): JP 3-4,Cam 9-10
EXPL. TARGET: Copper,Zinc,Silver,Gold
WORK DONE: EMGR 2.1 km;VLF
GEOL 1600.0 ha - 1 Map(s); 1:5000
MAGG 2.1 km
ROCK 126 sample(s);AG,AS,SB,CU,PB,ZN,AU
SILT 25 sample(s);AG,AS,SB,CU,PB,ZN,AU
SOIL 225 sample(s);AG,AS,SB,CU,PB,ZN,AU - 9 Map(s); 1:2500,1:5000
GEOLOGY: The claims are underlain by a sequence of volcanic and sedimentary rocks which have been intruded by Early Tertiary plutonic rocks of quartz monzonitic to granodioritic composition. Skarns host occurrences of copper-zinc-silver mineralization. The volcanic and sedimentary rocks are part of the Late Paleozoic Stewart Complex, and Late Triassic-Middle Triassic Unuk River Formation.
RELATED A.R.: 16955
MINFILE: 104B

Josh A.R. 18077 REPORT YEAR: 1988, 52 Pages

OPERATOR(S): **Orequest Consul.**
AUTHOR(S): Dewonck, B. Barnes, B.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 40 00 LONG. 130 47 00
CLAIM(S): Josh 3
EXPL. TARGET: Gold,Copper
WORK DONE: ROCK 100 sample(s);AU,ME
TREN 17.0 m 4 trench(es)
GEOLOGY: The property is underlain by syenodiorite which intrude andesitic to dacitic volcanic rocks possibly belonging to the Upper Triassic to Lower Jurassic Hazelton Group. Four different styles of mineralization are noted on the property, they are 1) chalcopyrite-magnetite-sphalerite skarns 2) quartz stockworks 3) pyrite-chalcopyrite quartz breccias with associated skarns and 4) base metal bearing quartz filled fissures.
MINFILE: 104B 023

Josh A.R. 16855 REPORT YEAR: 1988, 22 Pages

OPERATOR(S): **Redwood Res.**
AUTHOR(S): McLeod, J.W.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 39 01 LONG. 130 49 20
CLAIM(S): Josh,Josh 2
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc,Bismuth
WORK DONE: GEOL 450.0 ha
GEOLOGY: Volcano-sediments of Permian age are intruded by felsic rocks of the Upper Cretaceous Coast Plutonic Complex and occur as folded and faulted roof pendant structures. Three types of mineralization are present; actinolite-epidote-garnet skarns with copper, lead and zinc, quartz stockwork in the intrusives with pyrite and chalcopyrite, and quartz breccia zones associated with epidote-quartz-garnet skarns containing copper, lead, zinc, gold and silver.
MINFILE: 104B 290, 104B 291

Joy A.R. 18074 REPORT YEAR: 1988, 95 Pages, 3 Map(s)

OPERATOR(S): **Int. Wildcat Res.**
AUTHOR(S): King, G.R. Demczuk, L.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 44 00 LONG. 130 58 00
CLAIM(S): Joy 1-2
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: DIAD 302.7 m;BDB
GEOL 1000.0 ha - 1 Map(s); 1:5000
ROCK 216 sample(s);CU,PB,ZN,AG,AS,SB,AU - 2 Map(s); 1:5000
SAMP 203 sample(s);CU,PB,ZN,AG,AS,SB,AU
SILT 18 sample(s);CU,PB,ZN,AG,AS,SB,AU
SOIL 39 sample(s);CU,PB,ZN,AG,AS,SB,AU
GEOLOGY: The property is underlain by a sequence of intermediate clastic volcanics and silicified tuffs of Permian to Triasic age, which have been intruded by a granodioritic-tonalitic stock of Late Cretaceous to Early Tertiary age. Accessary magnetite is ubiquitous, prophylitic alteration is pervasive. Gold, copper, silver mineralization occurs in an oxidized shear zone.
RELATED A.R.: 16794
MINFILE: 104B 210

Joy A.R. 16794 REPORT YEAR: 1987, 104 Pages, 9 Map(s)

OPERATOR(S): **Bremwest Mining**
AUTHOR(S): King, G.R.
MINING DIV: Liard
LOCATION: NTS 104B10W, 104B11E LAT. 56 43 55 LONG. 130 57 35
CLAIM(S): Joy 1-2
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: EMGR 6.4 km;VLF - 1 Map(s); 1:1000
GEOL 1000.0 ha - 1 Map(s); 1:5000
MAGG 6.4 km - 1 Map(s); 1:1000
ROCK 128 sample(s);AU,AG,AS,SB,CU,PB,ZN - 3 Map(s); 1:5000
SILT 38 sample(s);AU,AG,AS,SB,CU,PB,ZN
SOIL 186 sample(s);AU,AG,AS,SB,CU,PB,ZN - 3 Map(s); 1:1000
GEOLOGY: A structurally complex unit of Jurassic (?) intermediate volcanics, argillites and limestones are intruded by several igneous bodies of felsic-intermediate composition. Propylitic alteration is commonly intense in volcanics. Gold, silver and copper mineralization occurs in shear zones.

Morain A.R. 17572 REPORT YEAR: 1988, 31 Pages, 1 Map(s)

OPERATOR(S): **Cons. Silver Standard Mines**
AUTHOR(S): Holtby, M.H. Folk, P.G. Potter, A.R.C.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 31 55 LONG. 130 51 37
CLAIM(S): Linda 1,Linda 3
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: PROS 1000.0 ha - 1 Map(s); 1:5000
ROCK 33 sample(s);ME

SOIL 4 sample(s);ME

GEOLOGY: Polymetallic sulphide bearing silicified limestone and andesites of the Lower Jurassic Unuk River Formation have been found as boulders in a moraine at the headwaters of Snippaker Creek. Chalcopyrite, pyrite, pyrrhotite, galena, sphalerite and pyrite occur in quartz veins. Gold and silver values are associated with high sulphide contents.

Ret A.R. 17469 REPORT YEAR: 1988, 97 Pages, 15 Map(s)

OPERATOR(S): **Northwest Gold Synd.**
AUTHOR(S): Ikona, C.K.
MINING DIV: Liard
LOCATION: NTS 104B10W, 104B11E, 104B14E, 104B15W LAT. 56 44 45 LONG. 131 00 00
CLAIM(S): Ret 2-7
WORK DONE: EMAB 40.0 km;VLF - 4 Map(s); 1:20 000
FOTO 1975.0 ha - 1 Map(s); 1:10 000
MAGA 40.0 km - 10 Map(s); 1:20 000

GEOLOGY: The eastern portion of the claim block is underlain by the Upper Cretaceous Coast Plutonic Complex consisting of quartz monzonite, granodiorite, gabbro and granite. The lower elevations are predominantly underlain by a series of Lower Jurassic volcanics and sediments of the Hazelton Group. The western portions appear to contain the Hazelton Group sequence and two stages of intrusive activity.

Secretariat-Still A.R. 17279 REPORT YEAR: 1988, 38 Pages

OPERATOR(S): **Ashworth, C.E.**
AUTHOR(S): Todoruk, S.L. Ikona, C.K.
MINING DIV: Liard
LOCATION: NTS 104B10W ·LAT. 56 30 52 LONG. 130 59 12
CLAIM(S): Secretariat,Still
EXPL. TARGET: Gold,Silver
WORK DONE: HMIN 3 sample(s);ME
ROCK 22 sample(s);ME

GEOLOGY: The claims appear to be underlain by similar Lower Jurassic Unuk River Formation lithologies as those which host significant gold deposits on Skyline Exploration Ltd.'s and Cominco/Delaware Resource Corp.'s claims. Float samples of quartz veining with pyrite, galena and sphalerite assayed 15.4 and 18.2 grams per tonne gold.

Snip A.R. 16895 REPORT YEAR: 1987, 94 Pages, 5 Map(s)

OPERATOR(S): **Mt. Calvery Res.**
AUTHOR(S): Folk, P.G.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 35 10 LONG. 130 52 59
CLAIM(S): Snip 2
EXPL. TARGET: Gold
WORK DONE: DIAD 1015.0 m 8 hole(s);NQ
GEOL 300.0 ha - 2 Map(s); 1:1000
MAGG 9.0 km - 1 Map(s); 1:1000
ROCK 119 sample(s);ME - 1 Map(s); 1:1000
SAMP 350 sample(s);ME
SOIL 142 sample(s);ME - 1 Map(s); 1:1000

GEOLOGY: Fine to coarse grained pyroclastic volcanics are intruded by a porphyritic phase of the Upper Cretaceous Coast Plutonic Complex. Intense sericite-pyrite alteration is ubiquitous. Gold values occur in pre-sericite stringer zones and post-sericite tension fractures.

MINFILE: 104B 117

Stu A.R. 16930 REPORT YEAR: 1987, 73 Pages, 3 Map(s)

OPERATOR(S): **Kestrel Res.**
AUTHOR(S): Todoruk, S.L. Ikona, C.K.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 38 00 LONG. 130 55 00
CLAIM(S): Stu 1-2
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: GEOL 900.0 ha - 2 Map(s); 1:250 000,1:5000
ROCK 256 sample(s);ME - 1 Map(s); 1:5000
SOIL 47 sample(s);ME

GEOLOGY: Paleozoic massive grey limestone is overlain successively by Mesozoic greywacke/siltstone/argillite and andesite agglomerate units. The greywacke/siltstone/argillite and agglomerate units have been cut by feldspar porphyry and andesite dykes which appear to be responsible for significant gold/silver/zinc/lead/arsenopyrite/copper mineralization. The most common style of mineralization occurs in iron-carbonate (calcite)/pyrite veins which vary in width up to 15 metres.

MINFILE: 104B 310, 104B 311

Stu 4-5 A.R. 17128 REPORT YEAR: 1988, 85 Pages, 2 Map(s)

OPERATOR(S): **Pamicon Dev.**
AUTHOR(S): Todoruk, S.L. Ikona, C.K.
MINING DIV: Liard
LOCATION: NTS 104B10W LAT. 56 41 00 LONG. 130 55 00
CLAIM(S): Stu 4-5
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: HMIN 9 sample(s);ME
ROCK 69 sample(s);ME - 1 Map(s); 1:5000
SOIL 293 sample(s);ME - 1 Map(s); 1:5000

GEOLOGY: The oldest rocks on the property are Paleozoic massive white to grey limestone in fault contact with younger Mesozoic sedimentary and volcanic rocks. A thick sequence of greywacke/siltstone/argillite/quartzite appears to be overlain by younger andesitic to andesite agglomerate. Tertiary basalt flows occur along the Iskut River in the north of the claim area. A soil sample anomaly measuring 100 metres by 100 metres with gold, silver, lead, zinc and copper values was discovered at the 900 metre elevation level.

Waratah A.R. 16904 REPORT YEAR: 1987, 214 Pages, 72 Map(s)

OPERATOR(S): **Tungco Res.**
AUTHOR(S): Caufield, D.
MINING DIV: Liard
LOCATION: NTS 104B10W, 104B11E LAT. 56 41 00 LONG. 131 00 00
CLAIM(S): Waratah 4-7
EXPL. TARGET: Gold,Copper,Lead,Zinc,Silver
WORK DONE: DIAD 1038.5 m 24 hole(s); BQ - 11 Map(s); 1:500,1:250
EMGR 29.4 km;VLF ,HL - 14 Map(s); 1:5000,1:2500
GEOL 600.0 ha - 27 Map(s); 1:125 000,1:500,1:250,1:50
LINE 29.4 km
MAGG 29.4 km - 4 Map(s); 1:5000,1:2500
SAMP 681 sample(s);CU,PB,ZN,AG,AU

SOIL 1264 sample(s);CU,PB,ZN,AG,AU,AS - 16 Map(s); 1:5000,1:2500
TREN 115.0 m 23 trench(es)

GEOLOGY: Gold-bearing quartz-chlorite veins with base metal mineralization occur in Triassic volcaniclastic rocks of the Unuk River Formation. The veins, which follow northwesterly striking fractures, are narrow but high in gold values. To date eighteen veins have been discovered

MINFILE: 104B 204

Waratah A.R. 16720 REPORT YEAR: 1987

OPERATOR(S): **Tungco Res.**
AUTHOR(S): Caulfield, D.
MINING DIV: Liard
LOCATION: NTS 104B10W, 104B11E LAT. 56 41 02 LONG. 130 58 56
CLAIM(S): Waratah 5-7
WORK DONE: DIAD 1038.5 m 24 hole(s);BQ
EMGR 33.4 km;VLF ,HLEM
GEOL 500.0 ha
HMIN 7 sample(s);CU,PB,ZN,AG,AU,AS
LINE 29.4 km
MAGG 29.4 km
ROCK 271 sample(s);CU,PB,ZN,AG,AU,AS
SAMP 410 sample(s);CU,AG,AU
SILT 4 sample(s);CU,PB,ZN,AG,AU,AS
SOIL 1264 sample(s);CU,PB,ZN,AG,AU,AS
TOPO
TREN 166.0 m 23 trench(es)

GEOLOGY: The claims are underlain by a mafic volcaniclastic unit that is believed to be of Upper Triassic age and correlative with lower members of the Lower Jurassic Hazelton Group or more specifically, the Lower Jurassic Unuk River Formation. Quartz veins with copper-gold, native gold-pyrite and copper-lead-zinc-silver-gold mineralization occur.

RELATED A.R.: 14832

Waratah A.R. 18113 REPORT YEAR: 1988, 143 Pages, 41 Map(s)

OPERATOR(S): **Tungco Res.**
AUTHOR(S): Caulfield, D.A.
MINING DIV: Liard
LOCATION: NTS 104B10W, 104B11E LAT. 56 41 00 LONG. 130 59 00
CLAIM(S): Waratah 5-6
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: EMGR 16.3 km;VLF - 15 Map(s); 1:2500
GEOL 2000.0 ha - 2 Map(s); 1:5000
LINE 3.6 km
MAGG 16.3 km - 12 Map(s); 1:2500
ROCK 238 sample(s);AU,AG,CU,PB,ZN
SOIL 761 sample(s);AU,CU,PB,ZN,AG,AS - 12 Map(s); 1:2500
TREN 118.0 m 17 trench(es)

GEOLOGY: Upper Triassic andesitic agglomerates, volcanic conglomerates and greywackes are intruded by orthoclase porphyry bodies. Propylitic alteration hosts narrow quartz-sulphide veins with significant gold and silver contents.

RELATED A.R.: 14832, 16720
MINFILE: 104B 204

Burnie A.R. 16957 REPORT YEAR: 1987, 46 Pages, 2 Map(s)

OPERATOR(S): **Androne Res.**
AUTHOR(S): Cavey, G. McCrossan, E.
MINING DIV: Liard
LOCATION: NTS 104B11E LAT. 56 35 06 LONG. 131 04 43
CLAIM(S): Burnie 1-2,Dan 1-2
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 3175.0 ha - 1 Map(s); 1:10 000
ROCK 139 sample(s);CU,PB,ZN,AG,AU
SILT 54 sample(s);CU,PB,ZN,AG,AU
SOIL 281 sample(s);AG,AU - 1 Map(s); 1:10 000

GEOLOGY: The property is predominantly underlain by marine sediments and volcanics of the Lower-Middle Jurassic Unuk River and Betty Creek Formations. These are intruded by Upper Cretaceous quartz diorites of the Coast Plutonic Complex. Predominant shears are northwest and northeast. Mineralization is associated with silicified fracture or shear zones subjected to varying degrees of calcic, propylitic or argillic alteration.

MINFILE: 104B 269

For A.R. 17024 REPORT YEAR: 1987, 49 Pages, 3 Map(s)

OPERATOR(S): **Regal Petr.**
AUTHOR(S): Cavey, G. Raven, W.
MINING DIV: Liard
LOCATION: NTS 104B11E, 104B11W LAT. 56 32 04 LONG. 131 13 10
CLAIM(S): For 3-5
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 900.0 ha - 1 Map(s); 1:10 000
HMIN 10 sample(s);ME
ROCK 310 sample(s);AU - 1 Map(s); 1:10 000
SILT 10 sample(s);AU
SOIL 180 sample(s);AU - 1 Map(s); 1:10 000

GEOLOGY: The property is predominantly underlain by marine sediments of the Lower Jurassic Hazelton Group intruded by Cretaceous quartz diorites related to the Coast Plutonic Complex. Mineralization (pyrite, chalcopyrite, malachite, trace silver-gold) is associated with northwest to northeast trending fractures.

Gab (Stu) A.R. 17131 REPORT YEAR: 1988, 149 Pages, 3 Map(s)

OPERATOR(S): **Cons. Sea Gold** **Northwest Gold Synd.**
AUTHOR(S): Todoruk, S.L. Ikona, C.K.
MINING DIV: Liard
LOCATION: NTS 104B11E, 104B15W LAT. 56 49 01 LONG. 130 57 57
CLAIM(S): Gab 11-12,Stu 9
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: GEOL 375.0 ha - 1 Map(s); 1:10 000
ROCK 68 sample(s);ME - 1 Map(s); 1:10 000
SOIL 215 sample(s);ME - 1 Map(s); 1:10 000

GEOLOGY: The oldest rocks on the Gab 11 and 12 claims occur in the northeast corner of the Gab 12 and are comprised of Paleozoic sedimentary and volcanic rocks. Stratigraphically above these units are Mesozoic argillite/greywacke/siltstone/conglomerate and andesite agglomerates. Quartz porphyry stocks, syenite-syenodiorite plugs and feldspar porphyry dykes cut the older rocks. Gold occurs in iron-carbonate and pyrite veins and pods and also in massive, fine to coarse-grained pyrite and magnetite.

MINFILE: 104B 333

Gossan A.R. 16891 REPORT YEAR: 1987, 52 Pages, 8 Map(s)

OPERATOR(S): **Western Can. Min.**
AUTHOR(S): Butterworth, B.P. Petersen, D.B.
MINING DIV: Liard
LOCATION: NTS 104B11E, 104B10W LAT. 56 38 04 LONG. 131 01 01
CLAIM(S): Gossan 15-17,Gossan 23,Gossan 30
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: GEOL 1100.0 ha - 2 Map(s); 1:5000
ROCK 56 sample(s);ME
SILT 19 sample(s);ME
SOIL 776 sample(s);ME - 6 Map(s); 1:5000,1:2500
GEOLOGY: The claims are underlain by a belt of rocks described by Grove (1971) as the Stewart Complex. The complex consists of an undivided group of southeasterly dipping sedimentary and volcanic rocks of Upper Triassic and Lower Triassic age which are intruded by Middle Mesozoic marginal phases of the Coast Range Intrusions.
Mineralization in the area consists of sphalerite, galena, pyrite and chalcopyrite as massive sulphide and quartz-sulphide veins infilling fractures and shear zones in the volcanic/sedimentary succession.
MINFILE: 104B 138

Iskut A.R. 16679 REPORT YEAR: 1988, 68 Pages, 11 Map(s)

OPERATOR(S): **Meridor Res.**
AUTHOR(S): Hermary, R.G. Dandy, L.
MINING DIV: Liard
LOCATION: NTS 104B11E LAT. 56 42 29 LONG. 131 07 15
CLAIM(S): Iskut 1-2
EXPL. TARGET: Gold
WORK DONE: EMAB 136.0 km;VLF - 2 Map(s); 1:10 000
EMGR 5.7 km;VLF - 2 Map(s); 1:5000
HMIN 3 sample(s);ME - 1 Map(s); 1:5000
LINE 11.0 km
MAGA 136.0 km - 1 Map(s); 1:10 000
ROCK 27 sample(s);ME - 1 Map(s); 1:5000
SOIL 415 sample(s);ME - 4 Map(s); 1:5000
GEOLOGY: The oldest geologically mapped unit is a Carboniferous-Permian schist and gneiss found to the northwest. The next oldest unit are Upper Triassic undifferentiated andesitic volcanic and sedimentary rocks. This unit covers the majority of the claim area. The youngest geologically mapped unit is a Cretaceous and Tertiary quartz monzonite in the southwest corner.
MINFILE: 104B 089

Iskut River A.R. 17435 REPORT YEAR: 1987, 62 Pages, 4 Map(s)

OPERATOR(S): **Dryden Res.**
AUTHOR(S): Scroggins, E. Leriche, P.D.
MINING DIV: Liard
LOCATION: NTS 104B11E LAT. 56 31 00 LONG. 131 03 00
CLAIM(S): Husky,Marvin,Sugar Ray,Muhammad,Tyson,Hazel,Marlin,Almond,Zara I-II,Remington,Seattle Slew,Echo Gold Float,Winchester
EXPL. TARGET: Gold,Silver,Copper
WORK DONE: GEOL 9600.0 ha - 1 Map(s); 1:20 000
HMIN 16 sample(s);ME
PETR 5 sample(s)
ROCK 35 sample(s);ME
SILT 51 sample(s);ME
SOIL 88 sample(s);ME - 3 Map(s); 1:20 000,1:10 000
GEOLOGY: Triassic ? andesitic-basaltic volcanic rocks, siltstone, limestone, conglomerate, and breccia are in contact with Middle Jurassic quartz monzonite. An east-west trending fault occurs within the volcanics and sediments. Contact metamorphic minerals and rusty pyritic alteration are present along the fault.

Jekill A.R. 16894 REPORT YEAR: 1987, 111 Pages, 14 Map(s)

OPERATOR(S): **Cove Energy**
AUTHOR(S): Burson, M.J.
MINING DIV: Liard
LOCATION: NTS 104B11E LAT. 56 34 55 LONG. 131 08 35
CLAIM(S): Hag 2,Hag 4,Hag 8
WORK DONE: GEOL 1175.0 ha - 3 Map(s); 1:10 000,1:2500
HMIN 24 sample(s);AU,AG
ROCK 86 sample(s);AU,AG
SILT 142 sample(s);AU,AG
SOIL 1347 sample(s);AU,AG - 11 Map(s); 1:10 000,1:2500
GEOLOGY: The property is underlain by Triassic and older sedimentary rocks and volcanic and sedimentary rocks correlated with the Lower Jurassic Unuk River Formation. Minor chalcopyrite, malachite and pyrite occur in quartz-carbonate veins proximal to a diorite sill.
MINFILE: 104B

New Hemlo (New Aurum) A.R. 17122 REPORT YEAR: 1987, 272 Pages, 28 Map(s)

OPERATOR(S): **Delaware Res.**
AUTHOR(S): Burson, M.J.
MINING DIV: Liard
LOCATION: NTS 104B11E LAT. 56 42 15 LONG. 131 08 19
CLAIM(S): Hemlo West 12-16,Hemlo West 18,Isk 1,Ver 1,Aurum 3-4
EXPL. TARGET: Copper,Lead,Zinc,Gold,Silver
WORK DONE: DIAD 956.0 m 8 hole(s);BQ - 8 Map(s); 1:250
GEOL 4000.0 ha - 4 Map(s); 1:10 000,1:2500
HMIN 36 sample(s);AU,AG,CU,PB,ZN
ROCK 602 sample(s);AU,AG - 3 Map(s); 1:10 000
SAMP 945 sample(s);AU,AG,CU,PB,ZN
SILT 93 sample(s);AU,AG
SOIL 2999 sample(s);AU,AG - 13 Map(s); 1:10 000,1:2500
GEOLOGY: Triassic and older sedimentary rocks and Triassic and Jurassic volcanic and sedimentary rocks which have been correlated with the Unuk River Formation have been intruded by a small stock of orthoclase porphyry. Narrow massive sulphide occurrences with gold and silver values are exposed in old trenches located on Hemlo West 16.
MINFILE: 104B 076, 104B 088, 104B 248, 104B 249

Pez-Dan A.R. 18156 REPORT YEAR: 1988, 210 Pages, 17 Map(s)

OPERATOR(S): **Pezgold Res.**
AUTHOR(S): McCrossan, E. Dewonck, B.
MINING DIV: Liard
LOCATION: NTS 104B11E LAT. 56 35 00 LONG. 131 03 00
CLAIM(S): Dan 1-3,Burnie 1-4
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: EMGR 5.3 km; VLF - 1 Map(s); 1:1250

GEOL 3000.0 ha - 2 Map(s); 1:10 000
LINE 5.3 km
ROCK 180 sample(s);ME - 1 Map(s); 1:10 000
SOIL 1140 sample(s);ME - 12 Map(s); 1:10 000,1:2500
TREN 38.0 m 4 trench(es) - 1 Map(s); 1:50

GEOLOGY: Polymetallic mineralization is associated with silicified fractures, faults, or shear zones in Mesozoic marine volcanic and sedimentary rocks.

RELATED A.R.: 16957
MINFILE: 104B 269, 104B 270, 104B 271, 104B 272

Raven A.R. 16960 REPORT YEAR: 1987, 41 Pages, 4 Map(s)

OPERATOR(S): **Ascot Res.**
AUTHOR(S): Burson, M.J.
MINING DIV: Liard
LOCATION: NTS 104B11E, 104B11W LAT. 56 40 25 LONG. 131 14 19
CLAIM(S): Rob 6-9
EXPL. TARGET: Gold
WORK DONE: GEOL 2000.0 ha - 1 Map(s); 1:10 000
HMIN 2 sample(s);AU,AG
ROCK 75 sample(s);AU,AG
SILT 75 sample(s);AU,AG
SOIL 200 sample(s);AU,AG - 3 Map(s); 1:10 000

GEOLOGY: The claims are predominantly underlain by Triassic and older volcanic and sedimentary rocks which have been intruded by granodiorites of the Upper Cretaceous Coast Plutonic Complex and older, possibly subvolcanic diorite plugs. Calc-silicate hornfels has formed along the granodiorite contact and invariably contains < 5 per cent pyrite with very subordinate chalcopyrite and pyrrhotite.

MINFILE: 104B

Rob A.R. 17219 REPORT YEAR: 1988, 40 Pages, 1 Map(s)

OPERATOR(S): **New Alster Energy**
AUTHOR(S): Todoruk, S.L. Ikona, C.K.
MINING DIV: Liard
LOCATION: NTS 104B11E LAT. 56 42 16 LONG. 131 12 38
CLAIM(S): Rob 19-21
WORK DONE: SILT 5 sample(s);ME
SOIL 150 sample(s);ME - 1 Map(s); 1:5000

GEOLOGY: The claims appear to be predominantly underlain by Lower Jurassic Unuk River Formation siltstone and greywacke. Near the northern claim boundary, feldspar porphyritic plugs have intruded these sediments. Four soil samples returned values greater than 30 ppb gold.

Rob A.R. 17126 REPORT YEAR: 1988, 45 Pages, 1 Map(s)

OPERATOR(S): **Crest Res.**
AUTHOR(S): Todoruk, S.L. Ikona, C.K.
MINING DIV: Liard
LOCATION: NTS 104B11E LAT. 56 41 27 LONG. 131 10 36
CLAIM(S): Rob 13-14
EXPL. TARGET: Zinc
WORK DONE: ROCK 21 sample(s);ME
SOIL 188 sample(s);ME - 1 Map(s); 1:500

GEOLOGY: The claims are predominantly underlain by Mesozoic greywacke. A large felsic intrusive is situated to the east of the property. A mineralized outcrop produced anomalous values in zinc while soil sampling identified a copper-lead-zinc-gold anomaly.

MINFILE: 104B

Rob A.R. 17023 REPORT YEAR: 1987, 44 Pages, 5 Map(s)

OPERATOR(S): **Teryl Res.**
AUTHOR(S): Poloni, J.R.
MINING DIV: Liard
LOCATION: NTS 104B11E LAT. 56 43 12 LONG. 131 09 43
CLAIM(S): Rob 15-16
EXPL. TARGET: Gold,Zinc,Arsenic
WORK DONE: ROCK 5 sample(s);CU,PB,ZN,AG,AS,AU
SOIL 338 sample(s);CU,PB,ZN,AG,AS,AU - 5 Map(s); 1:10 000,1:5000

GEOLOGY: The claims are underlain by Lower Jurassic Hazelton Group volcanics and sediments and pre-Permian quartzite, chert, limestone, argillite, slate, schist, tuffs, intrusives and gneiss. Upper Cretaceous Coast Plutonic Complex rocks cover part of the north section of Rob 16 and a large orthoclase prophyry mass is situated to the immediate east of the claims.

Rob A.R. 16903 REPORT YEAR: 1987, 33 Pages, 4 Map(s)

OPERATOR(S): **Dundee Res.**
AUTHOR(S): Burson, M.J.
MINING DIV: Liard
LOCATION: NTS 104B11E LAT. 56 38 00 LONG. 131 11 00
CLAIM(S): Rob 1-3,Rob 5
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 2000.0 ha - 1 Map(s); 1:10 000
HMIN 5 sample(s);AU,AG
ROCK 30 sample(s);AU,AG
SILT 76 sample(s);AU,AG
SOIL 143 sample(s);AU,AG - 3 Map(s); 1:10 000

GEOLOGY: The claims are underlain mainly by a granodiorite of the Coast Plutonic Complex which intrudes mafic volcanic flows and minor limestone of Triassic and older age.

Rob A.R. 17209 REPORT YEAR: 1988, 50 Pages, 8 Map(s)

OPERATOR(S): **Northwest Gold Synd.** **Kestrel Res.**
AUTHOR(S): Ikona, C.K. Todoruk, S.L.
MINING DIV: Liard
LOCATION: NTS 104B11E, 104B14E LAT. 56 45 10 LONG. 131 11 45
CLAIM(S): Rob 17-18,Win 1-2
WORK DONE: EMAB 70.0 km;VLF - 5 Map(s); 1:20 000
FOTO 2000.0 ha - 1 Map(s); 1:10 000
MAGA 70.0 km - 2 Map(s); 1:20 000

GEOLOGY: The claims appear to be underlain by Mississippian sediments, Triassic-Jurassic sedimentary and volcanic rocks and Recent basalt flows. Orthophotographic structural studies show the claims to be structurally complex.

MINFILE: 104B 106

Skyline A.R. 18061 REPORT YEAR: 1988, 168 Pages, 1 Map(s)

OPERATOR(S): **Skyline Ex.**
AUTHOR(S): Grove, E.W.

MINING DIV: Liard
LOCATION: NTS 104B11E LAT. 56 40 00 LONG. 131 05 00
CLAIM(S): Red Bluff,Homestake
EXPL. TARGET: Gold,Copper,Molybdenum/Molybdenite,Iron
WORK DONE: DIAD 1306.7 m 11 hole(s);BQ - 1 Map(s); 1:2500
SAMP 1500 sample(s);AU
GEOLOGY: Highly deformed, hornfelsed, fine-grained sedimentary rocks have been intruded by a syenitic to granitic pluton. The intrusion has resulted in extensive quartz-sericite-magnetite alteration. Potentially economic mineralization comprises quartz stockwork with gold-bearing pyrite, chalcopyrite, and quartz-molybdenite veins.
MINFILE: 104B 077

Snip A.R. 16748 REPORT YEAR: 1987

OPERATOR(S): **Delaware Res.**
AUTHOR(S): Nagy, L.
MINING DIV: Liard
LOCATION: NTS 104B11E LAT. 56 40 02 LONG. 131 06 17
CLAIM(S): Snip 1-2
WORK DONE: DIAD 13857.0 m 73 hole(s);BQ
GEOL 126.0 ha
SAMP 4000 sample(s);AU,AG,CU
GEOLOGY: The area is underlain by Permian and Triassic metasedimentary and metavolcanic rocks. The Twin zone is a 1-10 metre thick shear-vein that cuts through a massively bedded feldspathic greywacke +/- siltstone sequence.
RELATED A.R.: 04140, 09964, 14166, 15621

Win A.R. 17466 REPORT YEAR: 1988, 98 Pages, 8 Map(s)

OPERATOR(S): **Northwest Gold Synd.**
AUTHOR(S): Ikona, C.K.
MINING DIV: Liard
LOCATION: NTS 104B11E, 104B14E LAT. 56 44 30 LONG. 131 07 59
CLAIM(S): Win 9-12,Ret 1
WORK DONE: EMAB 63.0 km;VLF - 2 Map(s); 1:20 000
FOTO 1700.0 ha - 1 Map(s); 1:10 000
MAGA 63.0 km - 5 Map(s); 1:20 000
GEOLOGY: The claims are underlain primarily by undivided Lower Jurassic volcanics and sedimentary rocks belonging to the Hazelton Group intruded by Upper Cretaceous quartz monzonite and granodiorite of the Coast Plutonic Complex.

For A.R. 16958 REPORT YEAR: 1987, 52 Pages, 3 Map(s)

OPERATOR(S): **Achilles Res.**
AUTHOR(S): Cavey, G. Raven, W.
MINING DIV: Liard
LOCATION: NTS 104B11W, 104B11E LAT. 56 34 01 LONG. 131 15 24
CLAIM(S): For 1-2
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 1000.0 ha - 1 Map(s); 1:10 000
HMIN 8 sample(s);ME
ROCK 117 sample(s);AU - 1 Map(s); 1:10 000
SILT 16 sample(s);ME
SOIL 277 sample(s);AU - 1 Map(s); 1:10 000
GEOLOGY: The property is underlain by a thick sequence of marine sediments of the Lower Jurassic Hazelton Group. These have been intruded by Cretaceous and Tertiary quartz monzonites and diorites. Mineralization consists of trace to minor amounts of pyrite, pyrrhotite, chalcopyrite and sphalerite associated with small veins and dykes.
MINFILE: 104B

Zip A.R. 16954 REPORT YEAR: 1987, 37 Pages, 4 Map(s)

OPERATOR(S): **Rocky Mountain Energy**
AUTHOR(S): Burson, M.J.
MINING DIV: Liard
LOCATION: NTS 104B11W LAT. 56 40 16 LONG. 131 18 24
CLAIM(S): Zip 5-8
EXPL. TARGET: Nepheline Syenite
WORK DONE: GEOL 1800.0 ha - 1 Map(s); 1:10 000
HMIN 9 sample(s);AU,AG
ROCK 45 sample(s);AU,AG
SILT 48 sample(s);AU,AG
SOIL 217 sample(s);AU,AG - 3 Map(s); 1:10 000
GEOLOGY: The north half of the property contains thin-bedded to massive, often argillaceous limestone with minor intercalated mafic tuffs. The southern half is dominated by syenite with lesser nepheline syenite and diorite. Biotite and actinolite skarns have formed along the western contact between the syenites and the limestones.
MINFILE: 104B 123

Au A.R. 17536 REPORT YEAR: 1988, 33 Pages, 1 Map(s)

OPERATOR(S): **Chandi Res.**
AUTHOR(S): Ikona, C.K. Kiesman, W.D.
MINING DIV: Liard
LOCATION: NTS 104B14E, 104B15W LAT. 56 53 04 LONG. 131 01 24
CLAIM(S): Au 1-2,Biz,Nez
EXPL. TARGET: Gold,Copper
WORK DONE: FOTO 1575.0 ha - 1 Map(s); 1:10 000
SAMP 4 sample(s);AU,CU,PB,ZN,AG,AS
TOPO 1575.0 ha
GEOLOGY: Upper Paleozoic-Upper Triassic sediments and volcanics are intruded by syenitic intrusions. Disseminated and banded chalcopyrite, bornite, chalcocite +/- pyrite +/- gold +/- silver are associated with a magnetite-hematite-chlorite-garnet skarn. The Dirk showing located on the Au 1 claim and the Ridge showing on the Au 2 claim are skarns found at syenite-limestone contacts.
MINFILE: 104B 114

New A.R. 16850 REPORT YEAR: 1987, 132 Pages, 7 Map(s)

OPERATOR(S): **Ticker Tape Res.**
AUTHOR(S): King, G.R. Collins, D.A.
MINING DIV: Liard
LOCATION: NTS 104B14E, 104B15W LAT. 56 47 29 LONG. 131 00 29
CLAIM(S): New 7-8
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: DIAD 407.5 m 7 hole(s);BQ
EMGR 4.1 km;VLF - 2 Map(s); 1:1000
GEOL 500.0 ha - 1 Map(s); 1:5000
MAGG 4.1 km - 1 Map(s); 1:1000
ROCK 149 sample(s);AU,AG,SB,AS,CU,PB,ZN - 3 Map(s); 1:5000

SAMP 368 sample(s);AU,AG,PB,ZN
SILT 15 sample(s);AU,AG,SB,AS,CU,PB,ZN

GEOLOGY: Stewart Complex coarse clastic sediments, intermediate volcanics, carbonates and iron stones are intruded by a granodiorite stock. Mineralization includes a 35 centimetre wide auriferous quartz vein and two stratiform silver-lead-zinc occurrences.

MINFILE: 104B

New-Ver A.R. 17385 REPORT YEAR: 1988, 107 Pages, 15 Map(s)

OPERATOR(S): **North West Gold**
AUTHOR(S): Ikona, C.K. De Carle, R.J.
MINING DIV: Liard
LOCATION: NTS 104B14E, 104B15W LAT. 56 46 05 LONG. 130 56 51
CLAIM(S): Ver 1-2,New 1-6
EXPL. TARGET: Gold,Silver
WORK DONE: EMAB 144.0 km; VLF - 8 Map(s); 1:20 000
FOTO 3600.0 ha - 1 Map(s); 1:10 000
MAGA 144.0 km - 6 Map(s); 1:20 000

GEOLOGY: The claims are underlain by a series of Lower Jurassic volcanic and sedimentary rocks of the Hazelton Group. A band of Permian sedimentary rocks trends northeast across the northwest corner of the New 3 claim. Triassic-Cretaceous quartz monzonites and granodiorites have intruded the volcanic and sedimentary rocks. Several strong faults strike north to northeast.
occur.

Ticker Tape A.R. 18129 REPORT YEAR: 1988, 285 Pages, 18 Map(s)

OPERATOR(S): **Ticker Tape Res.**
AUTHOR(S): Cavey, G. Hudson, K.
MINING DIV: Liard
LOCATION: NTS 104B14E, 104B15W LAT. 56 50 00 LONG. 131 00 00
CLAIM(S): Ver 3-4,New 7-8,Ice 1-2,Ice 6-11
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: DIAD 975.0 m 9 hole(s) - 4 Map(s); 1:500
GEOL 750.0 ha - 5 Map(s); 1:500,1:2000,1:10 000
LINE 23.0 km
ROCK 254 sample(s);ME - 4 Map(s); 1:500
SAMP 739 sample(s);ME
SILT 19 sample(s);ME
SOIL 270 sample(s);ME - 5 Map(s); 1:10 000

GEOLOGY: The property is possibly underlain by Unik River-Betty Creek Formation rocks. Two styles of mineralization are developed. Native gold +/- bismuth bearing quartz veins which are shallow dipping and vary in width from 0.1 to 1.3 metres along a 150 metre surface exposure are hosted by granodiorite which has been pervasively chloritized and locally silicified with vein envelopes and microveinlets. Local argillic, potassic and chlorite-magnetite alteration is also present. The second style of mineralization developed on the property consists of fine-grained lead-zinc mineralization which is hosted in carbonates.

MINFILE: 104B

Win A.R. 17379 REPORT YEAR: 1988, 48 Pages, 8 Map(s)

OPERATOR(S): **North West Gold**
AUTHOR(S): Ikona, C.K. De Carle, R.J.
MINING DIV: Liard
LOCATION: NTS 104B14E LAT. 56 46 16 LONG. 131 09 56
CLAIM(S): Win 7-8
EXPL. TARGET: Gold,Silver
WORK DONE: EMAB 36.0 km; VLF - 4 Map(s); 1:20 000
FOTO 900.0 ha - 1 Map(s); 1:10 000
MAGA 36.0 km - 3 Map(s); 1:20 000

GEOLOGY: The claims are underlain primarily by undivided Lower Jurassic volcanic and sedimentary rocks of the Hazelton Group, which are intruded by Upper Cretaceous quartz monzonite and granodiorite of the Coast Plutonic Complex.

Win A.R. 17486 REPORT YEAR: 1988, 98 Pages, 8 Map(s)

OPERATOR(S): **Northwest Gold Synd.**
AUTHOR(S): Ikona, C.K. Darney, R.J.
MINING DIV: Liard
LOCATION: NTS 104B14E LAT. 56 48 41 LONG. 131 12 28
CLAIM(S): Win 3-6
WORK DONE: EMAB 67.2 km;VLF - 2 Map(s); 1:20 000
FOTO 1600.0 ha - 1 Map(s); 1:10 000
MAGA 67.2 km - 5 Map(s); 1:20 000

GEOLOGY: The claim area appears to be underlain by Lower Jurassic Hazelton Group volcanics and sediments. There are a number of small plugs of felsic intrusives of probable Triassic age along the central portion of the claim block.

Gab A.R. 17210 REPORT YEAR: 1988, 52 Pages, 8 Map(s)

OPERATOR(S): **Northwest Gold Synd. Kestrel Res.**
AUTHOR(S): Todoruk, S.L. Ikona, C.K.
MINING DIV: Liard
LOCATION: NTS 104B15W LAT. 56 51 39 LONG. 130 54 07
CLAIM(S): Gab 5-10
WORK DONE: EMAB 105.6 km;VLF - 5 Map(s); 1:20 000
FOTO 3000.0 ha - 1 Map(s); 1:10 000
MAGA 105.6 km - 2 Map(s); 1:20 000

GEOLOGY: The southwest portion of the property is underlain by andesite and andesite agglomerate of Triassic age. A major northeasterly trending fault bisects the property and has evidently resulted in uplifting of the geological units to the northwest. Mississippian sediments composed of sandstones and limestones underlie the andesite agglomerates.

MINFILE: 104B 282

Gab A.R. 17211 REPORT YEAR: 1988, 50 Pages, 8 Map(s)

OPERATOR(S): **Northwest Gold Synd. Kestrel Res.**
AUTHOR(S): Todoruk, S.L. Ikona, C.K.
MINING DIV: Liard
LOCATION: NTS 104B15W LAT. 56 49 01 LONG. 130 50 43
CLAIM(S): Gab 1-4
WORK DONE: EMAB 93.6 km;VLF - 5 Map(s); 1:20 000
FOTO 2000.0 ha - 1 Map(s); 1:10 000
MAGA 93.6 km - 2 Map(s); 1:20 000

GEOLOGY: The claims are underlain by Lower Jurassic sedimentary and volcanic rocks of the Hazelton Group and Permian sediments consisting of crinoidal limestone, chert, quartzite, argillite, slate and schist. Orthophoto studies show three major faults trending in a north-

northeasterly direction. A small circular structure with attendant radial fractures is noted in the southwest corner of the Gab 4 claim.

Joy A.R. 17140 REPORT YEAR: 1988, 89 Pages, 8 Map(s)

OPERATOR(S): **Northwest Gold Synd.** **Kestrel Res.**
AUTHOR(S): Todoruk, S.L.
MINING DIV: Liard
LOCATION: NTS 104B15W LAT. 56 46 31 LONG. 130 52 20
CLAIM(S): Joy 11-12
WORK DONE: EMAB 46.0 km;VLF - 5 Map(s); 1:20 000
FOTO 1000.0 ha - 1 Map(s); 1:10 000
MAGA 46.0 km - 2 Map(s); 1:20 000

GEOLOGY: The claims appear to be predominantly underlain by Lower Jurassic Unuk River Formation volcanic and sedimentary rocks. There appears to be a large diorite-granodiorite intrusive stock to the southwest of the claims. A major northeast trending linear structure passes through the Joy 12 claim block.

McLymont A.R. 16932 REPORT YEAR: 1987, 154 Pages, 8 Map(s)

OPERATOR(S): **Gulf Int. Min.**
AUTHOR(S): Grove, E.W.
MINING DIV: Liard
LOCATION: NTS 104B15W LAT. 56 49 18 LONG. 130 54 24
CLAIM(S): McLymont 1-4
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 27 hole(s);BQ ,AQ - 3 Map(s); 1:500
GEOL - 1 Map(s); 1:5000
LINE
ROAD - 1 Map(s); 1:20 000
ROCK 85 sample(s);AU,AG - 1 Map(s); 1:5000
SAMP 461 sample(s);AU,AG
SILT 55 sample(s);ME
SOIL 726 sample(s);ME - 1 Map(s); 1:5000
TREN 31 trench(es) - 1 Map(s); 1:5000

GEOLOGY: The claims are underlain by a porphyritic, quartz-rich leucocratic granite pluton. Country rocks, partly pendants within the pluton, consist of sedimentary and volcanic rocks of Mississippian age. Mineralization includes gold-silver bearing quartz-sulphide and ankerite-rich veins and stratabound pyrite-chalcopyrite-magnetite-barite zones with good gold values.

RELATED A.R.: 09224, 10418, 11319, 16695
MINFILE: 104B 126

McLymont A.R. 16695 REPORT YEAR: 1987

OPERATOR(S): **Gulf Int. Min.**
AUTHOR(S): Grove, E.W.
MINING DIV: Liard
LOCATION: NTS 104B15W LAT. 56 49 09 LONG. 130 54 40
CLAIM(S): McLymont 1-4
WORK DONE: DIAD 2184.0 m 27 hole(s);BQ,AQ
GEOL 1500.0 ha
LINE 16.3 km
ROAD 3.7 km
ROCK 85 sample(s);ME
SAMP 461 sample(s);AU,AG
SILT 55 sample(s);ME
SOIL 726 sample(s);ME
TREN 248.0 m 31 trench(es)

GEOLOGY: The claims are underlain by a porphyritic quartz-rich leucocratic granite pluton. Country rocks, partly pendants within the pluton, are sedimentary and volcanic rocks of Mississippian age. Mineralization includes gold-silver bearing quartz-sulphide and ankerite rich veins and stratabound pyrite-chalcopyrite-magnetite-barite zones with gold values.

RELATED A.R.: 09224, 10418, 11319

Mon A.R. 17534 REPORT YEAR: 1988, 109 Pages, 8 Map(s)

OPERATOR(S): **Kestrel Res.**
AUTHOR(S): Ikona, C.K. Todoruk, S.L. De Carle, R.J.
MINING DIV: Liard
LOCATION: NTS 104B15W LAT. 56 46 40 LONG. 130 49 55
CLAIM(S): Mon 5-6
EXPL. TARGET: Gold,Silver
WORK DONE: EMAB 40.0 km; VLF - 4 Map(s); 1:20 000
FOTO 1000.0 ha - 1 Map(s); 1:10 000
MAGA 40.0 km - 3 Map(s); 1:20 000

GEOLOGY: Paleozoic sedimentary and metasedimentary rocks outcrop at lower elevations, and Jurassic volcanic rocks outcrop at higher elevations. These rocks are intruded by Triassic-Cretaceous felsic plugs.

Mon A.R. 17533 REPORT YEAR: 1988, 56 Pages, 1 Map(s)

OPERATOR(S): **Cons. Sea Gold**
AUTHOR(S): Todoruk, S.L.
MINING DIV: Liard
LOCATION: NTS 104B15W LAT. 56 49 23 LONG. 130 59 29
CLAIM(S): Mon 1-2,Wei,Zel
EXPL. TARGET: Gold,Copper
WORK DONE: GEOL 1875.0 ha - 1 Map(s); 1:10 000
HMIN 3 sample(s);AU,CU,PB,ZN,AG,AS
ROCK 19 sample(s);AU,CU,PB,ZN,AG,AS
SILT 6 sample(s);AU,CU,PB,ZN,AG,AS

GEOLOGY: The claims are predominantly underlain by Lower Jurassic volcanic and sedimentary rocks belonging to the Hazelton Group. Feldspar porphyry dykes are found locally on the property. Quartz monzonite stocks are located to the east of the claims. A skarn outcrop measuring 100 metres by 200 metres is located near the eastern boundary of the Mon 1 claim block. Mineralization consists of magnetite, chalcopyrite, bornite, azurite and malachite with gold values.

MINFILE: 104B

Mon A.R. 17535 REPORT YEAR: 1988, 112 Pages, 8 Map(s)

OPERATOR(S): **Kestrel Res.**
AUTHOR(S): Ikona, C.K. De Carle, R.J.
MINING DIV: Liard
LOCATION: NTS 104B15W LAT. 56 53 24 LONG. 130 53 42
CLAIM(S): Mon 3-4
EXPL. TARGET: Gold,Copper
WORK DONE: EMAB 36.0 km; VLF - 4 Map(s); 1:20 000
FOTO 900.0 ha - 1 Map(s); 1:10 000
MAGG 36.0 km - 3 Map(s); 1:20 000

ISKUT RIVER 104B

GEOLOGY: Mississippian limestone and Triassic andesite are bisected by northwest-striking faults. Syenite intrusions locally have created skarns containing chalcopyrite and pyrite with or without precious metal values.

TELEGRAPH CREEK 104G

Bam A.R. 17570 REPORT YEAR: 1988, 173 Pages, 13 Map(s)

OPERATOR(S): **Radcliffe Res.**
AUTHOR(S): Diner, Y.
MINING DIV: Liard
LOCATION: NTS 104G02W LAT. 57 12 00 LONG. 130 52 30
CLAIM(S): Bam 7-10,Bam 13-14,Bam 18
EXPL. TARGET: Gold
WORK DONE:
DIAD 837.0 m 9 hole(s);NQ - 8 Map(s); 1:50
GEOL 2500.0 ha - 3 Map(s); 1:1250,1:2500,1:10 000
IPOL 3.2 km
PETR 6 sample(s)
ROCK 478 sample(s);AU,AG
SAMP 298 sample(s);AU,AG
SOIL 70 sample(s);AU,AG - 2 Map(s); 1:1250,1:10 000
TREN 960.0 m
GEOLOGY: Permian phyllites and metavolcanics, overlain by Mississippian carbonates and Jurassic conglomerates are intruded by Jurassic(?) granite and covered by Quarternary olivine basalts and glacial tills. Major structures trend northeast to north-northeast and are altered. In the discovery area, the granite-phyllite contact zone, which dips 35 to 60 degrees, is silicified and pyritized. Where the contact zone is cut by northeast trending shear zones, pipe-like silicified bodies are produced in the granite, with silica pyrite breccias along the shear zones carrying economic gold grades. Alteration includes sericitization, ankeritization and chloritization.
RELATED A.R.: 12561
MINFILE: 104G 027, 104G 110

Bee Jay A.R. 16942 REPORT YEAR: 1987, 25 Pages, 5 Map(s)

OPERATOR(S): **Teck Ex.**
AUTHOR(S): Folk, P.G.
MINING DIV: Liard
LOCATION: NTS 104G02W LAT. 57 10 30 LONG. 130 56 36
CLAIM(S): Windy
EXPL. TARGET: Gold,Silver
WORK DONE:
GEOL 1.0 ha - 5 Map(s); 1:1000,1:200
SAMP 344 sample(s);AU,AG
TREN 398.0 m 45 trench(es)
GEOLOGY: Permian and older metamorphosed volcanics, volcaniclastics and sediments are cut by a series of east trending quartz-sulphide veins.
RELATED A.R.: 09040, 09692, 10917, 14982
MINFILE: 104G 070

Bee Jay Gold A.R. 17927 REPORT YEAR: 1988, 85 Pages, 2 Map(s)

OPERATOR(S): **Teck**
AUTHOR(S): Delaney, T.M.
MINING DIV: Liard
LOCATION: NTS 104G02W LAT. 57 08 00 LONG. 130 56 00
CLAIM(S): Windy
EXPL. TARGET: Gold,Silver
WORK DONE:
DIAD 1352.2 m 9 hole(s);NQ - 2 Map(s); 1:500,1:1000
SAMP 312 sample(s);AU,AG
GEOLOGY: The area is underlain by a thick core of Permian and older phyllites, metamorphosed greenstones, sericite schists, volcaniclastics and sediments. Sulphide bearing quartz veins intrude foliated greenstone of Upper Triassic age.
RELATED A.R.: 09040, 09692, 10917, 14982, 16942
MINFILE: 104G 070

Foremore A.R. 18105 REPORT YEAR: 1988, 47 Pages, 8 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Mawer, A.B. Klein, J.
MINING DIV: Liard
LOCATION: NTS 104G02W LAT. 57 02 00 LONG. 130 54 00
CLAIM(S): Fore 2-3,Fore 11,More 2-3
EXPL. TARGET: Gold
WORK DONE:
GEOL 2500.0 ha - 6 Map(s); 1:5000,1:1000
ROCK 117 sample(s);AU,AG,CU,PB,ZN,AS,BA
SOIL 121 sample(s);AU,AG,CU,PB,ZN - 2 Map(s); 1:5000
GEOLOGY: Preliminary mapping indicates that the property is underlain by a sequence of foliated felsic volcanic breccias and tuffs, greenstones (andesite fragmentals), limestone breccia or sharpstone congloemrate, hematite schists and pyroclastics. This sequence is overlain by a thick section of massive bedded dark green andesite in turn overlain by undifferentiated volcanics and a thick limestone. The rock units generally trend northwesterly with moderate to steep dips to the southwest.
RELATED A.R.: 18103

Foremore A.R. 18103 REPORT YEAR: 1988, 16 Pages, 3 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Mawer, A.B. Klein, J.
MINING DIV: Liard
LOCATION: NTS 104G02W LAT. 57 02 00 LONG. 130 54 00
CLAIM(S): Fore 2-3,Fore 11,More 2-3
EXPL. TARGET: Gold
WORK DONE:
EMGR 14.2 km;HLEM - 3 Map(s); 1:5000
LINE 14.2 km
GEOLOGY: Preliminary mapping indicates that the property is underlain by a sequence of foliated felsic volcanic breccias and tuffs, greenstones (andesite fragmentals), limestone breccia or sharpstone conglomerate, hematite schists and pyroclastics. This sequence is overlain by undifferentiated volcanics and a thick limestone. The rock units generally trend northwesterly with moderate to steep dips to the southwest.

Trek A.R. 18115 REPORT YEAR: 1988, 108 Pages, 14 Map(s)

OPERATOR(S): **Lorica Res.**
AUTHOR(S): Awmack, H.J. Yamamura, B.K.
MINING DIV: Liard
LOCATION: NTS 104G03W LAT. 57 03 00 LONG. 131 18 00
CLAIM(S): Trek 1-4
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc

WORK DONE:
EMGR 2.4 km;VLF - 3 Map(s); 1:2500
GEOL 1000.0 ha - 1 Map(s); 1:5000
MAGG 2.4 km - 3 Map(s); 1:2500
ROCK 156 sample(s);ME - 2 Map(s); 1:5000
SILT 9 sample(s);ME
SOIL 430 sample(s);AU,AG,CU,PB,ZN,AS,SB,MO - 5 Map(s); 1:2500

GEOLOGY: Upper Triassic andesites are intruded by quartz-monzonite and diorite plugs. A major northeast trending fault zone crosses through the property. Gold and silver are associated with: a) volcanogenic chalcopyrite-pyrrhotite-magnetite massive sulphides; b) structurally controlled quartz-sulphide veins; and c) massive pyrite-chalcopyrite-(molybdenite) breccia pipes.

MINFILE: 104G

Trophy A.R. 17101 REPORT YEAR: 1988, 164 Pages, 4 Map(s)

OPERATOR(S): **United Min. Services**
AUTHOR(S): Forster, D.
MINING DIV: Liard
LOCATION: NTS 104G03W LAT. 57 08 00 LONG. 131 20 00
CLAIM(S): Trophy 1-4,Glacier 1-8,Catto 1-2,Scotch 3,Scotch 6
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE:
GEOL 7000.0 ha - 1 Map(s); 1:5000,1:300,1:200,1:100
ROCK 1217 sample(s);ME - 3 Map(s); 1:10 000,1:5000

GEOLOGY: The claims are underlain by Permian to Jurassic limestone, chert, conglomerate, volcanic flows, tuffs, breccias and syenite plutons. Precious metal mineralization occurs within major northeast trending faults and shear zones, and consists of galena, tetrahedrite, sphalerite, pyrite, chalcopyrite, electrum and native gold in a vein-gangue of quartz, sericite and potassium feldspar.

MINFILE: 104G 050, 104G 053, 104G 066, 104G 017, 104G 102

Icy A.R. 18116 REPORT YEAR: 1988, 87 Pages, 3 Map(s)

OPERATOR(S): **Sarabat Gold**
AUTHOR(S): Yamamura, B.K. Awmack, H.J.
MINING DIV: Liard
LOCATION: NTS 104G04E LAT. 57 12 00 LONG. 131 34 00
CLAIM(S): JW 1,JW 3,IC I-II,PS I
EXPL. TARGET: Gold,Silver,Copper
WORK DONE:
GEOL 2125.0 ha - 1 Map(s); 1:10 000
ROCK 179 sample(s);ME - 1 Map(s); 1:10 000
SILT 8 sample(s);ME
SOIL 125 sample(s);AU,AG,CU,PB,ZN,AS,SB,MO - 1 Map(s); 1:10 000

GEOLOGY: Upper Triassic andesites and clastic sediments overlie pre-Permian limestones and pelitic schists. Quartz-chlorite-pyrite-magnetite veins contain up to 4.38 ounces per tonne gold.

RELATED A.R.: 00501, 00669
MINFILE: 104G 021

Jack Wilson A.R. 18114 REPORT YEAR: 1988, 110 Pages, 8 Map(s)

OPERATOR(S): **Bellex Min.**
AUTHOR(S): Awmack, H.J. Yamamura, B.K.
MINING DIV: Liard
LOCATION: NTS 104G04E LAT. 57 10 00 LONG. 131 35 00
CLAIM(S): JW 2,JW 4-8
EXPL. TARGET: Gold,Silver
WORK DONE:
GEOL 2000.0 ha - 1 Map(s); 1:10 000
ROCK 180 sample(s);ME - 1 Map(s); 1:5000
SILT 13 sample(s);ME
SOIL 338 sample(s);AU,AG,CU,PB,ZN,AS,MO - 6 Map(s); 1:5000

GEOLOGY: Upper Triassic andesites and clastic sediments overly pre-Permian limestone and pelitic schists. Quartz-chlorite-pyrite-chalcopyrite-magnetite veins contain up to 1.75 ounces per tonne gold. Soil geochemistry and mineralization indicate potential for porphyry copper-gold mineralization.

RELATED A.R.: 16531

Saddlehorn A.R. 18104 REPORT YEAR: 1988, 19 Pages, 4 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Paterson, I.A.
MINING DIV: Liard
LOCATION: NTS 104G04E LAT. 57 08 00 LONG. 131 34 00
CLAIM(S): Saddlehorn
EXPL. TARGET: Gold
WORK DONE:
ROCK 15 sample(s);AU,AG,CU,PB,ZN,AS
SOIL 218 sample(s);AU,AG,CU,PB,ZN,AS - 4 Map(s); 1:8845

GEOLOGY: The claims are located astride the eastern contact zone of Jurassic-Cretaceous granodiorites and quartz diorites of the Coast Range Batholith. The intrusive rocks are in contact with greenstones and minor argillite (Stuhini Group?) which have been extensively bleached, pyritized and epidotized along the contact zone. The greenstones are cut by several 1 to 4 metres wide quartz syenite (5 per cent quartz) dykes, occasional narrow quartz veins (80 centimetre thickness) and several pyritic shear zones.

MJ A.R. 18134 REPORT YEAR: 1988, 72 Pages, 1 Map(s)

OPERATOR(S): **Prolific Res.**
AUTHOR(S): Davis, J.W.
MINING DIV: Liard
LOCATION: NTS 104G12E LAT. 57 37 00 LONG. 131 45 00
CLAIM(S): MJ 1-16
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE:
GEOL 6775.0 ha - 1 Map(s); 1:10 000
ROCK 194 sample(s);AU,AG,CU,PB,ZN
SILT 269 sample(s);AU,AG,CU,PB,ZN

GEOLOGY: The property consists of a succession of Paleozoic sediments overlain by Triassic clastic, carbonate and volcanic units intruded by Jurassic to Tertiary intrusive rocks.

MINFILE: 104G 011, 104G 020

Castle A.R. 16897 REPORT YEAR: 1987, 40 Pages, 9 Map(s)

OPERATOR(S): **Teck Ex.**
AUTHOR(S): Folk, P.G.
MINING DIV: Liard
LOCATION: NTS 104G16E LAT. 57 48 46 LONG. 130 12 32
CLAIM(S): Castle 2
EXPL. TARGET: Copper,Gold,Silver
WORK DONE:
GEOL 600.0 ha - 1 Map(s); 1:2500
IPOL 10.5 km - 2 Map(s); 1:2500
LINE 14.5 km - 1 Map(s); 1:2500
MAGG 14.5 km - 1 Map(s); 1:2500
ROCK 99 sample(s);CU,AG,AU - 1 Map(s); 1:2500

TELEGRAPH CREEK 104G

SOIL 545 sample(s);CU,AG,AU - 2 Map(s); 1:2500
SPOT 14.5 km - 1 Map(s); 1:2500
GEOLOGY: Upper Triassic andesitic pyroclastics are mineralized with pyrite, chalcopyrite and gold along northwest trending sericite-pyrite-quartz shears within a large propylitic halo.
MINFILE: 104G 076

Quash Creek A.R. 18170 REPORT YEAR: 1988, 86 Pages, 14 Map(s)

OPERATOR(S): **Teck Ex.**
AUTHOR(S): Delaney, T.M.
MINING DIV: Liard
LOCATION: NTS 104G16W LAT. 57 47 30 LONG. 130 20 00
CLAIM(S): QC 1-15
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: GEOL 6750.0 ha - 4 Map(s); 1:1000,1:5000
ROCK 187 sample(s);AU,AG,CU,PB,ZN,AS,CD - 6 Map(s); 1:200
SILT 34 sample(s);AU,ME
SOIL 1079 sample(s);AU,ME - 4 Map(s); 1:1000,1:2500
TREN 287.0 m 16 trench(es)
GEOLOGY: Polymetallic sulphide mineralization is structurally controlled within a diorite intrusive of post Upper Triassic age.
MINFILE: 104G 033, 104G 044

SPATSIZI 104H

Rok A.R. 17316 REPORT YEAR: 1988, 98 Pages, 7 Map(s)

OPERATOR(S): **Manchester Res.**
AUTHOR(S): Dupre, D.G.
MINING DIV: Liard
LOCATION: NTS 104H13W LAT. 57 47 49 LONG. 129 52 24
CLAIM(S): Rok
EXPL. TARGET: Copper,Gold,Silver
WORK DONE: GEOL 500.0 ha - 2 Map(s); 1:2000
MAGG 30.0 km - 1 Map(s); 1:2000
SOIL 904 sample(s);CU,AU - 4 Map(s); 1:2000
GEOLOGY: The property is underlain by flat-lying to gently dipping Upper Triassic-Middle Jurassic andesitic volcanic rocks and minor sedimentary rocks which have been intruded by several coeval, altered alkaline stocks. Several copper-gold occurrences are present on the property. These are associated with abundant quartz veining and fracturing accompanied by magnetite in intensely altered zones. The best grade mineralization occurs at the faulted and fractured contact between the intrusive stocks and the volcanics.
MINFILE: 104H

CRY LAKE 104I

Kutcho Creek A.R. 17009 REPORT YEAR: 1987, 46 Pages, 9 Map(s)

OPERATOR(S): **Esso Res. Can.**
AUTHOR(S): Thiersch, P. Holbeck, P.
MINING DIV: Liard
LOCATION: NTS 104I01W LAT. 58 10 00 LONG. 128 22 00
CLAIM(S): Josh 3-4,Pipe,Pink Two
EXPL. TARGET: Copper,Zinc,Silver
WORK DONE: EMGR 13.5 km;GENI - 4 Map(s); 1:2500
GRAV 5.0 km - 4 Map(s); 1:2500
ROCK 10 sample(s);ME
SOIL 191 sample(s);CU,PB,ZN,AS,AG - 1 Map(s); 1:12 000
GEOLOGY: The area investigated is underlain by felsic to mafic pyroclastic rocks of the Triassic aged Kutcho Formation. The Kutcho volcanogenic massive sulphide deposits are located 3 kilometres north of the study area. The largest of these deposits contains open pit mineable reserves of 17 000 000 tonnes grading 1.6 per cent copper, 2.3 per cent zinc and 29.2 grams per tonne silver. Kutcho Formation rocks have undergone greenschist facies metamorphism and have been folded into large scale, tight, inclined folds plunging shallowly to the west. Intense sericite-carbonate alteration is typical of mineralized areas.
RELATED A.R.: 15592
MINFILE: 104I 075

D A.R. 16900 REPORT YEAR: 1987, 24 Pages, 2 Map(s)

OPERATOR(S): **Balance Res.**
AUTHOR(S): Kim, H.
MINING DIV: Liard
LOCATION: NTS 104I03E LAT. 58 12 00 LONG. 129 07 00
CLAIM(S): D 3-4,D 6,D 8-9
EXPL. TARGET: Gold,Silver,Lead,Zinc
WORK DONE: GEOL 2000.0 ha - 2 Map(s); 1:5000
GEOLOGY: The claims are underlain by green and purple volcanic and volcaniclastic rocks of Triassic age. The southern edge of the property encompasses Middle Jurassic Toodoggone volcanics. Showings consist of quartz veins with gold-silver mineralization and a shear zone with base metal mineralization.
RELATED A.R.: 10699, 10966, 11279, 13276, 14004, 15773, 16683
MINFILE: 104I 093

Falcon A.R. 17490 REPORT YEAR: 1988, 49 Pages

OPERATOR(S): **Tymar Management**
AUTHOR(S): Scott, T.C.
MINING DIV: Liard
LOCATION: NTS 104I06E LAT. 58 17 57 LONG. 129 00 42
CLAIM(S): Falcon 20
EXPL. TARGET: Copper,Lead,Zinc,Gold,Silver
WORK DONE: SOIL 125 sample(s);ME
GEOLOGY: The property is underlain by elements of the King Salmon Assemblage, specifically the Upper Triassic Sinwa Formation and the Lower Jurassic Inklin Group. Galena, sphalerite and tetrahedrite occur in a near vertical, northwesterly dipping quartz-fissure zone within Sinwa Formation limestone adjacent to the overlying Inklin Group shales. To date, only a one kilometre section in the centre of a five kilometre air photo linear has been examined. The dominant alteration is fracture controlled silicification within the limestone.
RELATED A.R.: 14954
MINFILE: 104I 081

Mizi A.R. 17334 REPORT YEAR: 1987, 86 Pages, 9 Map(s)

OPERATOR(S): **Izumi Ex.**
AUTHOR(S): Augsten, B.E.K.

CRY LAKE 104I

MINING DIV: Liard
LOCATION: NTS 104I14E, 104I15W LAT. 58 58 57 LONG. 129 00 49
CLAIM(S): Nizi 1,Nizi 3-6
EXPL. TARGET: Silver,Gold,Zinc,Lead
WORK DONE: EMGR 40.0 km;VLF - 1 Map(s); 1:2500
GEOL 375.0 ha
LINE 40.0 km
MAGG 40.0 km - 1 Map(s); 1:2500
REST 40.0 km VLF - 2 Map(s); 1:2500
ROCK 202 sample(s);ME - 2 Map(s); 1:2500
SOIL 1440 sample(s);PB,ZN,AG,AS,SB,AU - 3 Map(s); 1:2500
GEOLOGY: The property is underlain by highly faulted felsic to intermediate volcanic rocks of Devonian-Triassic age which host gold and silver-bearing fissure veins. A partially exposed and layered quartz-carbonate vein with disseminated sphalerite, pyrite and galena returned values up to 3141.1 grams per tonne silver, 1.1 grams per tonne gold, 6.32 per cent zinc and 1.10 per cent lead over 0.5 metres.
MINFILE: 104I 032

DEASE LAKE 104J

Moon A.R. 18158 REPORT YEAR: 1988, 87 Pages, 4 Map(s)

OPERATOR(S): **United Cambridge Mines**
AUTHOR(S): Thompson, W.H.
MINING DIV: Atlin
LOCATION: NTS 104J04E LAT. 58 12 00 LONG. 131 36 00
CLAIM(S): Moon 1
EXPL. TARGET: Gold,Copper
WORK DONE: EMGR 16.0 km;VLF - 2 Map(s); 1:5000,1:10 000
LINE 17.5 km
SOIL 627 sample(s);AU,AG,CU,HG - 2 Map(s); 1:5000
GEOLOGY: Veins and lenses of specularite, magnetite, pyrite and chalcopyrite containing gold, occur near the contact of monzonite intrusions and tuffaceous and volcanic rock of Upper Triassic Stuhini Group. Gold also occurs along fault zones. Elevated levels of cobalt, arsenic, lead, zinc and mercury in addition to copper have been found.
RELATED A.R.: 13939
MINFILE: 104J 015

Thibert A.R. 17706 REPORT YEAR: 1988, 127 Pages, 9 Map(s)

OPERATOR(S): **Equity Silver Mines**
AUTHOR(S): Robertson, R.C.R.
MINING DIV: Liard
LOCATION: NTS 104J16E, 104J16W LAT. 58 52 03 LONG. 130 22 11
CLAIM(S): E.A. 121-140,EA 43
EXPL. TARGET: Gold,Platinum
WORK DONE: DIAD 460.2 m 3 hole(s);NQ - 9 Map(s); 1:5000,1:1000,1:500,1:250
SAMP 168 sample(s);AG,AU
GEOLOGY: Several bodies of serpentinized or quartz-carbonate altered peridotite and dunite are present along the northwest trending Thibert Fault. There is a long history of placer gold production from creeks draining the fault. There is also a reported occurrence of platinum group minerals in placer concentrates.
MINFILE: 104J 012

TULSEQUAH 104K

Bandit A.R. 17745 REPORT YEAR: 1988, 55 Pages

OPERATOR(S): **Chevron Min. Dia Met Min.**
AUTHOR(S): Schiller, E.A. Fipke, C.E.
MINING DIV: Atlin
LOCATION: NTS 104K01W LAT. 58 04 00 LONG. 132 16 00
CLAIM(S): Bandit 1-4
EXPL. TARGET: Gold
WORK DONE: HMIN 18 sample(s);ME
GEOLOGY: The property is underlain by a pre-Upper Triassic phyllite package consisting of siliceous siltstones to phyllic green stones. Unconformably overlying these rocks is a package of andesitic to basaltic tuffs. A 2 1/2 kilometres sub-vertical fault intersects volcanic rocks, carrying large amounts free gold containing silver.
RELATED A.R.: 10755, 11824, 16360
MINFILE: 104K 086

Bandit A.R. 18021 REPORT YEAR: 1988, 37 Pages, 6 Map(s)

OPERATOR(S): **Dia Met Min.**
AUTHOR(S): Schiller, E.A. Fipke, C.E.
MINING DIV: Atlin
LOCATION: NTS 104K01W LAT. 58 04 00 LONG. 132 16 00
CLAIM(S): Bandit 1-4,Hijack 1-2
EXPL. TARGET: Gold
WORK DONE: HMIN 32 sample(s);AU,ME - 6 Map(s); 1:1000
GEOLOGY: The property is underlain by a pre-Upper Triassic phyllite package consisting of siliceous siltstones to phyllitic greenstones. Unconformably overlying these rocks is a package of andesitic to basaltic tuffs.
RELATED A.R.: 10755, 11824, 16360, 17745
MINFILE: 104K 086

Sam A.R. 17487 REPORT YEAR: 1988, 31 Pages, 6 Map(s)

OPERATOR(S): **North American Metals**
AUTHOR(S): Titley, E.
MINING DIV: Atlin
LOCATION: NTS 104K01W, 104K08W LAT. 58 15 00 LONG. 132 19 29
CLAIM(S): Sam 1
WORK DONE: GEOL 375.0 ha - 1 Map(s); 1:5000
ROCK 16 sample(s);ME - 5 Map(s); 1:5000
SILT 3 sample(s);ME
TOPO 375.0 ha
GEOLOGY: The claim is within the Stikinia Terrane and is underlain by Permian limestones. No significant mineralization was found, however very strong geochemical anomalies exist possibly related to fault structures.
RELATED A.R.: 15550
MINFILE: 104K 042

Ant A.R. 17907 REPORT YEAR: 1988, 62 Pages

OPERATOR(S): **Stetson Res. Management**
AUTHOR(S): Dynes, W.J. Freeze, C.J.

MINING DIV: Atlin
LOCATION: NTS 104K08E LAT. 58 28 00 LONG. 132 10 00
CLAIM(S): Ant 1-4,Bing 1-3,Sam 1,Sam 3
EXPL. TARGET: Gold,Silver
WORK DONE: GEOL 800.0 ha
ROCK 191 sample(s);AU,AG
GEOLOGY: The property is underlain by Permian to Upper Triassic limestones, Triassic intrusives and Cretaceous and Tertiary Sloko Group volcanics. Gold and silver mineralization occurs in quartz plus or minus chalcedony plus or minus calcite veining and stockwork zones, quartz carbonate halos and gossans. Mineralization consists of disseminated pyrite, chalcopyrite, galena, sphalerite and magnetite.
MINFILE: 104K 032

Vine A.R. 17910 REPORT YEAR: 1988, 71 Pages

OPERATOR(S): **Stetson Res. Management**
AUTHOR(S): Freeze, J.C. Dynes, W.J.
MINING DIV: Atlin
LOCATION: NTS 104K08E, 104K09E, 104K09W LAT. 58 30 00 LONG. 132 15 00
CLAIM(S): Vine 1-4
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc,Antimony,Arsenic
WORK DONE: GEOL 200.0 ha
ROCK 141 sample(s);ME
SOIL 460 sample(s);ME
GEOLOGY: The property is underlain by Jurassic Takwahoni sediments intruded by post Middle Jurassic diorite and Cretaceous and Tertiary Sloko Group felsic volcanics. Syngenetic pyrite occurs in Takwahoni siltstones and shales. Anomalous arsenic and copper occurs in soils.
RELATED A.R.: 11497
MINFILE: 104K 075

Northern Gold A.R. 16726 REPORT YEAR: 1987

OPERATOR(S): **Chevron Min.**
AUTHOR(S): Walton, G.
MINING DIV: Atlin
LOCATION: NTS 104K08W LAT. 58 19 01 LONG. 132 20 03
CLAIM(S): Nie 2-4,Tut 2-3,Ram,Tot 2,Tot 4
WORK DONE: DIAD 3509.0 m 40 hole(s);NQ ,HQ
EMGR 15.0 km;VLF
GEOL 126.0 ha
LINE 22.6 km
ROCK 22 sample(s);ME
SAMP 1913 sample(s);ME
SOIL 36 sample(s);ME
TREN 44.0 m 2 trench(es)
GEOLOGY: The property covers the northern half of a 15 kilometre fault zone which has gold mineralization along its length and is characterized by fault slivers of limestone, tuff, diorite and ultramafic rocks.

Ram A.R. 18049 REPORT YEAR: 1988, 26 Pages

OPERATOR(S): **Shannon Energy**
AUTHOR(S): Wetherill, J.F.
MINING DIV: Atlin
LOCATION: NTS 104K08W LAT. 58 17 00 LONG. 132 26 00
CLAIM(S): Ram
EXPL. TARGET: Gold,Silver,Copper,Antimony,Arsenic
WORK DONE: HMIN 7 sample(s);ME
GEOLOGY: Permian limestone is intruded by post Middle Jurassic hornblende diorite and granodiorite which in turn are crosscut by felsite sills and dykes. A quartz stockwork containing visible sulphides in limoniitic and chloritized diorite is exposed.
RELATED A.R.: 10760
MINFILE: 104K 097

Sal A.R. 17909 REPORT YEAR: 1988, 50 Pages

OPERATOR(S): **Stetson Res. Management**
AUTHOR(S): Freeze, J.C.
MINING DIV: Atlin
LOCATION: NTS 104K08W LAT. 58 27 00 LONG. 132 17 00
CLAIM(S): Sal 1-2
EXPL. TARGET: Gold,Silver,Copper,Molybdenum/Molybdenite
WORK DONE: GEOL 25.0 ha
ROCK 11 sample(s);ME
SOIL 80 sample(s);ME
GEOLOGY: The property is underlain predominantly by Cretaceous to Early Tertiary Sloko Group quartz monzonite intruded by aplite dyke and quartz veins gentically related to the Sloko Group. Shear zones up to 40 metres wide and trending 127 degrees can be traced for 120 metres. Mineralization occurs in quartz veins associated with shear and consists of malachite, azurite, bornite, molybdenum with some anomalous gold values.
MINFILE: 104K 040

Vardis A.R. 17908 REPORT YEAR: 1988, 31 Pages, 2 Map(s)

OPERATOR(S): **Stetson Res. Management**
AUTHOR(S): Freeze, J.C. Dynes, W.J. Wetherill, J.W.
MINING DIV: Atlin
LOCATION: NTS 104K10E LAT. 58 38 00 LONG. 132 33 00
CLAIM(S): Vardis 1-4
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc,Arsenic,Antimony,Mercury
WORK DONE: GEOL 250.0 ha - 1 Map(s); 1:10 000
ROCK 32 sample(s);ME - 1 Map(s); 1:10 000
GEOLOGY: The property is underlain by Upper Triassic to Middle Jurassic volcanics. Sinwa Formation sediments are thrust over Middle Jurassic Takwahoni sediments by the King Solomon thrust fault. Cretaceous and Tertiary Sloko Group rocks consisting of felsite and quartz porphyry intrude Upper Triassic Stikine Group sediments. Deeply dipping strike slip fault forms contact between Sloko Group and Takwahoni Formation. The alteration zone comprising silification, carbonitization, and barite host high anomalies of arsenic, antimony and mercury, as well as gold values.
RELATED A.R.: 10616
MINFILE: 104K 112

Barb A.R. 17917 REPORT YEAR: 1988, 20 Pages, 2 Map(s)

OPERATOR(S): **Westmin Res.**
AUTHOR(S): Lane, R.
MINING DIV: Atlin
LOCATION: NTS 104K10W LAT. 58 44 27 LONG. 132 54 00
CLAIM(S): Barb 1,Barb 3-4

EXPL. TARGET: Gold,Silver,Copper
WORK DONE: ROCK 24 sample(s);ME
SILT 7 sample(s);ME
SOIL 21 sample(s);ME - 2 Map(s); 1:2500
GEOLOGY: The property is situated on the eastern margin of the Coast Plutonic Complex, and underlain by upper Triassic King Salmon Formation sediments consisting of andesitic volcanic and volcaniclastic rocks and limestone. On the northeast part of the property Upper Triassic Sinwa Formation limestone occurs underlain by the northeast diping King Salmon thrust fault. The rocks are intruded by intermediate plutons and dykes of Jurassic or Cretaceous age, which caused partial skarnification.
RELATED A.R.: 03208, 09541, 12144
MINFILE: 104K 011, 104K 107

Cap A.R. 17839 REPORT YEAR: 1988, 26 Pages, 3 Map(s)

OPERATOR(S): **Omni Res.**
AUTHOR(S): Murton, J.C. Woods, D.V.
MINING DIV: Atlin
LOCATION: NTS 104K11E, 104K11W, 104K14E, 104K14W LAT. 58 44 27 LONG. 133 16 13
CLAIM(S): Cap 2-4,Goat 1
EXPL. TARGET: Copper,Iron,Silver,Gold
WORK DONE: EMAB 92.0 km;VLF - 2 Map(s); 1:10 000
MAGA 92.0 km - 1 Map(s); 1:10 000
GEOLOGY: The claims are underlain by Upper Triassic volcanics and clastic sediments which have been intruded by felsic stocks, sills and dykes. Hydrothermal alteration and sulphide enrichment is evident in microveinlets and associated base metal veins found throughout the property.
RELATED A.R.: 08959, 09246, 09592, 10452, 11089, 11421
MINFILE: 104K 010, 104K 060, 104K 085

Lis A.R. 17517 REPORT YEAR: 1988, 14 Pages, 3 Map(s)

OPERATOR(S): **Georgia Res.**
AUTHOR(S): Lambert, E.
MINING DIV: Atlin
LOCATION: NTS 104K11E LAT. 58 43 00 LONG. 133 08 00
CLAIM(S): Lis 2
EXPL. TARGET: Copper,Gold,Lead,Zinc,Silver
WORK DONE: SOIL 61 sample(s);ME - 3 Map(s); 1:10 000
GEOLOGY: The property is underlain by Upper Triassic mudstones and siltstones of the King Salmon Formation, and diorite-monzonite intrusive rocks. Bedding typically strikes 120-135 degrees and dips 40-45 degrees southwest. Sheeted dykes of carbonate-altered syenodiorite intrude both the sedimentary and igneous rocks. Sulphide-bearing quartz-carbonate veins fill fractures trending east-west. Pyrite, arsenopyrite, sphalerite and lesser galena, stibnite, pyrrhotite and chalcopyrite occur in patches and lenses.
MINFILE: 104K 090

Ala A.R. 17518 REPORT YEAR: 1988, 14 Pages, 3 Map(s)

OPERATOR(S): **Georgia Res.**
AUTHOR(S): Lambert, E.
MINING DIV: Atlin
LOCATION: NTS 104K11W LAT. 58 33 00 LONG. 133 29 00
CLAIM(S): Ala 9
EXPL. TARGET: Copper,Zinc,Gold,Silver
WORK DONE: SOIL 88 sample(s);ME - 3 Map(s); 1:10 000
GEOLOGY: The property is primarily underlain by intermediate to felsic volcanic rocks of the Stuhini Group. A large limonitic and hematitic gossanous zone occurs in the northeast corner of the claim. Pyrrhotite with lesser pyrite, sphalerite, chalcopyrite and galena occur in the gossan area, occupying crosscutting fractures.
MINFILE: 104K 096

BR A.R. 17051 REPORT YEAR: 1988, 22 Pages, 1 Map(s)

OPERATOR(S): **Dominion Explorers**
AUTHOR(S): Fekete, M.
MINING DIV: Atlin
LOCATION: NTS 104K11W LAT. 58 36 13 LONG. 133 28 59
CLAIM(S): BR
EXPL. TARGET: Antimony,Gold,Silver
WORK DONE: GEOL 0.5 ha - 1 Map(s); 1:100
ROCK 32 sample(s);SB,PB,AU,AG
TREN 50.0 m 9 trench(es)
GEOLOGY: The claims are underlain by faulted and folded argillaceous phyllites and quartzites of the Upper Triassic Stuhini Group. Fault replacement-type mineralization occurs and consists of massive to disseminated stibnite and minor pyrite in quartz gangue.
MINFILE: 104K

Ericksen-Ashby A.R. 17310 REPORT YEAR: 1988, 130 Pages, 10 Map(s)

OPERATOR(S): **Northwind Ventures**
AUTHOR(S): Bojczyszyn, T.
MINING DIV: Atlin
LOCATION: NTS 104K11W, 104K12E LAT. 58 40 29 LONG. 133 27 40
CLAIM(S): Bear 1-9,EA 1-2,BC 1-3
EXPL. TARGET: Silver,Gold,Lead,Zinc
WORK DONE: EMGR 7.5 km;VLF - 2 Map(s); 1:1250
GEOL 100.0 ha - 4 Map(s); 1:10 000,1:1250,1:1200
LINE 8.9 km
ROCK 233 sample(s);AU,AG,PB,ZN
SILT 67 sample(s);AU,AG,PB,ZN
SOIL 345 sample(s);AU,AG,PB,ZN - 2 Map(s); 1:1250
TOPO 4050.0 ha - 2 Map(s); 1:50 000,1:10 000
GEOLOGY: The property is underlain by Upper Paleozoic volcanics and sediments and Upper Triassic Stuhini Group volcanic rocks. The former is intruded by a 7 kilometre Cretaceous(?) quartz-feldspar porphyry dyke. Massive sulphide mineralization consisting of pyrrhotite, pyrite, sphalerite and galena occur as pods adjacent the near vertical limestone/andesite contact and contains high silver and anomalous gold values.
RELATED A.R.: 07707, 10026
MINFILE: 104K 009, 104K 020, 104K 021, 104K 094

Hill A.R. 17516 REPORT YEAR: 1988, 15 Pages

OPERATOR(S): **Georgia Res.**
AUTHOR(S): Lambert, E.
MINING DIV: Atlin
LOCATION: NTS 104K11W LAT. 58 42 00 LONG. 133 18 00
CLAIM(S): Hill 2

TULSEQUAH 104K

EXPL. TARGET: Zinc,Lead,Silver,Gold
WORK DONE: SOIL 50 sample(s);ME
GEOLOGY: The property is underlain by Sloko Group volcanics of Lower Cretaceous to Early Tertiary age. Lithologies present include rhyolite, dacite and trachyte flows. Extensive shear zones up to thousands of feet long contain sulphide mienralization carrying values in gold, silver, lead, zinc and antimony.
MINFILE: 104K 052

Big Bull A.R. 16983 REPORT YEAR: 1988, 16 Pages, 1 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S):
MINING DIV: Atlin
LOCATION: NTS 104K12E LAT. 58 40 12 LONG. 133 32 48
CLAIM(S): Big Bull Ext.,Bruce Fr.,Bull 2-4,Bull 8-9,Webb 1
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: GEOL 25.0 ha - 1 Map(s); 1:1000
GEOLOGY: Pre-Permian andesite flows and pyroclastics with lesser felsic pyroclastics have been variably altered and pyritized. The felsic pyroclastics host sphalerite-galena-chalcopyrite-pyrite-barite lenses that have been broken up by faulting.
RELATED A.R.: 11361
MINFILE: 104K 008

Tulsequah A.R. 17137 REPORT YEAR: 1988, 34 Pages, 2 Map(s)

OPERATOR(S): **Cominco Redfern Res.**
AUTHOR(S): Casselman, M.
MINING DIV: Atlin
LOCATION: NTS 104K12E LAT. 58 44 11 LONG. 133 35 20
CLAIM(S): Tulsequah Chief (L.5670)
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: DIAD 735.8 m 1 hole(s);NQ - 2 Map(s); 1:1000,1:996
GEOLOGY: The property is underlain by pre-Permian andesite flows and pyroclastics with lesser felsic pyroclastics, clastics and limestones. The chief deposits are hosted by felsic pyroclastics which have been variably pyritized and altered and host sphalerite, galena, chalcopyrite, pyrite and barite lenses. Lithologies and sulphide lenses have been broken up by faulting.
MINFILE: 104K 002

Tulsequah A.R. 17054 REPORT YEAR: 1988, 44 Pages, 10 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Payne, J.G. Sisson, W.G.
MINING DIV: Atlin
LOCATION: NTS 104K12E LAT. 58 38 33 LONG. 133 37 50
CLAIM(S): Webb 4-6,Webb 10-16,Phil 3-4,Co 3,Co 5
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: GEOL 20000.0 ha - 10 Map(s); 1:10 000
GEOLOGY: The property is underlain by a pre-Permian assemblage of primarily andesite flows and pyroclastics with lesser clastics, limestones and felsic pyroclastics that have been broken into separate litho-tectonic blocks by major faults. Layered rocks are intruded by Paleozoic, Mesozoic and Tertiary plugs and dykes.
MINFILE: 104K 008

Mount Eaton A.R. 17513 REPORT YEAR: 1987, 23 Pages, 1 Map(s)

OPERATOR(S): **Tymar Management**
AUTHOR(S): Mark, D.G.
MINING DIV: Atlin
LOCATION: NTS 104K13E LAT. 58 47 04 LONG. 133 33 13
CLAIM(S): Goat 1-2,Canyon,Bear
WORK DONE: EMAB 127.5 km;VLF
MAGA 127.5 km - 1 Map(s); 1:10 000
GEOLOGY: The northeastern two-thirds of the property is underlain by Upper Cretaceous Coast Plutonic Complex quartz monzonite. Bordering the quartz monzonite to the southwest is a pre-Upper Triassic group of sediments and intercalated volcanics that are mostly altered. The southwestern corner of the property is within the Upper Triassic Stuhini Group of volcanics consisting of andesitic to basaltic flows and a variety of sedimentary rocks.
MINFILE: 104K 055

Per A.R. 18040 REPORT YEAR: 1988, 17 Pages, 2 Map(s)

OPERATOR(S): **Cominco**
AUTHOR(S): Mawer, A.B.
MINING DIV: Atlin
LOCATION: NTS 104K15E LAT. 58 59 00 LONG. 132 41 00
CLAIM(S): Per 1-4
EXPL. TARGET: Gold
WORK DONE: GEOL 700.0 ha - 1 Map(s); 1:5000
ROCK 22 sample(s);AU,AG,CU,PB,ZN
SOIL 150 sample(s);AU,AG,CU,PB,ZN - 1 Map(s); 1:5000
GEOLOGY: The claims are underlain by a mixed assemblage of Mississippian to Permian Cache Creek Group sedimentary rocks, which are in fault contact with peridotite of the Nahlin ultramafic body.

PT A.R. 17238 REPORT YEAR: 1988, 19 Pages, 1 Map(s)

OPERATOR(S): **Platinum Synd. Dunn, D.St.C.**
AUTHOR(S): Dunn, D.St.C.
MINING DIV: Atlin
LOCATION: NTS 104K16E LAT. 58 51 10 LONG. 132 12 35
CLAIM(S): PT 1-2
EXPL. TARGET: Platinum,Gold
WORK DONE: PROS 400.0 ha - 1 Map(s); 1:5000
GEOLOGY: Permian ultramafics underlie the southern one third of the claims and are in fault contact with Permian limestone and siltstone underlying the northern two thirds of the claims.

SKAGWAY 104M

Engineer A.R. 17253 REPORT YEAR: 1988, 187 Pages, 4 Map(s)

OPERATOR(S): **Erickson Gold Min.**
AUTHOR(S): Smit, H.
MINING DIV: Atlin
LOCATION: NTS 104M08E LAT. 59 29 00 LONG. 134 14 00
CLAIM(S): Northern Partnership 1-4,Engineer 1
EXPL. TARGET: Gold
WORK DONE: DIAD 1778.0 m 8 hole(s); NQ - 4 Map(s); 1:1000
SAMP 434 sample(s);ME

GEOLOGY: Auriferous epithermal quartz veins striking 360 to 045 degrees are related to quartz-rich shear zones striking 145 to 160 degrees within Lower Jurassic Labarge Group of sedimentary rocks.

The quartz veins are low in sulphides but sometimes contain very high gold values. The shear zones contain 1 to 5 per cent pyrite and are a low-grade, high-tonnage gold target.

MINFILE: 104M 014

Pim A.R. 17970 REPORT YEAR: 1988, 70 Pages, 1 Map(s)

OPERATOR(S): **Bergvinson, E.T.**
AUTHOR(S): Wilkins, A.L. Coster, I.P.D.A.
MINING DIV: Atlin
LOCATION: NTS 104M14E LAT. 59 59 00 LONG. 135 13 00
CLAIM(S): Pim 1-13
EXPL. TARGET: Copper,Lead,Zinc,Silver,Gold
WORK DONE: GEOL 3000.0 ha - 1 Map(s); 1:10 000
ROCK 402 sample(s);CU,PB,ZN,AG,AS,AU
SILT 27 sample(s);CU,PB,ZN,AG,AS,AU

GEOLOGY: The claims are underlain by Upper Cretaceous or Lower Tertiary hornblende-biotite quartz monzonitew of the Coast Mountain Plutonic Complex. The quartz monzonite has been overlain and intruded by Eocene volcanics and related feeder pipes and dykes of the Bennett Lake Cauldron Complex. The rocks are commonly shattered and brecciated along the caldron margins and adjacent to faults and dykes. Mineralization consists of pyrite with minor galena, sphalerite and chalcopyrite occurring in quartz veins.

MINFILE: 104M

Golden Partridge A.R. 18190 REPORT YEAR: 1988, 20 Pages

OPERATOR(S): **Doron Ex.**
AUTHOR(S): Davidson, G.S.
MINING DIV: Atlin
LOCATION: NTS 104M14W LAT. 59 58 00 LONG. 135 20 00
CLAIM(S): Emily,Julia
EXPL. TARGET: Gold,Silver
WORK DONE: PROS 150.0 ha
ROCK 11 sample(s);AU,AG,PT,PD,CU,NI

GEOLOGY: The property lies on the southern side of the Bennett Lake Caldera Complex. The complex consists of two nested calderas, an eroded structural dome and a thick succession of pyroclastics and epiclastic rocks deposited during the Tertiary. Mineralized quartz veins are associated with rhyolite and andesite dykes in ring fracture systems within the caldera.

RELATED A.R.: 18176
MINFILE: 104M 060

Golden Partridge A.R. 18176 REPORT YEAR: 1988, 33 Pages

OPERATOR(S): **Doron Ex.**
AUTHOR(S): Davidson, G.S.
MINING DIV: Atlin
LOCATION: NTS 104M14W LAT. 59 58 00 LONG. 135 20 00
CLAIM(S): Julia,Emily,Yak
EXPL. TARGET: Gold,Silver
WORK DONE: ROCK 48 sample(s);AU,AG,CU,PB,ZN,MO,SB,HG

GEOLOGY: The property lies on the southern side of the Bennett Lake Caldera Complex. The complex consists of two nested calderas, an eroded structural dome and a thick succession of pyroclastics and epiclastic rocks deposited during the Tertiary. Mineralized quartz veins are associated with rhyolite and andesite dykes in ring fracture systems within the caldera.

MINFILE: 104M 060

Fin A.R. 17992 REPORT YEAR: 1988, 16 Pages, 2 Map(s)

OPERATOR(S): **Noranda Ex.**
AUTHOR(S): MacKay, G.
MINING DIV: Atlin
LOCATION: NTS 104M15W LAT. 59 58 00 LONG. 134 51 00
CLAIM(S): Fin
EXPL. TARGET: Gold,Mercury
WORK DONE: PROS 500.0 ha - 1 Map(s); 1:10 000
ROCK 17 sample(s);ME - 1 Map(s); 1:10 000
SILT 5 sample(s);ME

GEOLOGY: Argillic shales of the Inklin Formation have been intruded by large granite to granodiorite plutons and dykes of Cretaceous age. The argillic shales are pyritic and contain little else.

Pavey A.R. 17830 REPORT YEAR: 1988, 51 Pages

OPERATOR(S): **Lodestar Ex.**
AUTHOR(S): Davidson, G.S.
MINING DIV: Atlin
LOCATION: NTS 104M15W LAT. 59 55 08 LONG. 134 51 39
CLAIM(S): LQ
EXPL. TARGET: Gold,Silver,Lead,Zinc,Antimony
WORK DONE: PROS 375.0 ha
ROCK 12 sample(s);AU,AG,CU,PB,ZN

GEOLOGY: The claim is underlain by Middle to Upper Jurassic tuffs and porphyry flows and by Lower Jurassic Laberge Group argillite. Metamorphic rocks of Paleozoic to Proterozoic age outcrop in the southwest corner of the claims. A 1 metre wide white quartz vein outcrops in the bed of the main creek on the property. This vein contains up to 20 per cent arsenopyrite, 50 per cent galena, 5 per cent pyrite and some chalcopyrite.

RELATED A.R.: 16569
MINFILE: 104M 044

Rigel A.R. 17583 REPORT YEAR: 1988, 42 Pages

OPERATOR(S): **United Keno Hill Mines**
AUTHOR(S): Ouellette, D.J.
MINING DIV: Atlin
LOCATION: NTS 104M15W LAT. 59 59 49 LONG. 134 47 01
CLAIM(S): Rigel 1
WORK DONE: EMGR 5.2 km;VLF
MAGG 5.2 km

GEOLOGY: The property is bisected by a very rusty ridge consisting of pyriterous cherts.

Gold Bottom Creek A.R. 16914 REPORT YEAR: 1987, 152 Pages, 16 Map(s)

OPERATOR(S): **Pacific Trans-Ocean Res.**
AUTHOR(S): Garagan, T.
MINING DIV: Atlin
LOCATION: NTS 104N03W LAT. 59 11 00 LONG. 133 21 00
CLAIM(S): Ursy 1-6,Poo 1-3,On 1
EXPL. TARGET: Mercury,Silver
WORK DONE: GEOL 2000.0 ha - 4 Map(s); 1:2500,1:10 000
LINE 40.7 km
MAGG 40.7 km - 6 Map(s); 1:2500
ROCK 189 sample(s);HG,AU,AG,AS,SB
SOIL 1164 sample(s);HG,AU,AG,AS,SB - 6 Map(s); 1:2500

GEOLOGY: The property is underlain by Pennsylvanian Cache Creek Group sediments and volcanics which are intruded by the Pennsylvanian or later Nahlin ultramafic body. The ultramafic is in fault contact (Nahlin fault system) towards the southwest with the Jurassic Laberge Group sediments. Tertiary felsic rocks intrude the ultramafic centre of the property. Two main zones of alteration and mineralization have been located on the the eastern and western margins of the Nahlin ultramafic body. The zones trend 150 degrees, parallel to the regional faults. Broad mercury soil geochemical anomalies occur in areas of intense carbonate alteration.Crystalline cinnabar (and orpiment at 12 + 00S/0 + 880W) occurs in several locations within the alteration zones. The largest zone of cinnabar mineralization occurs on the West grid between lines 9 + 00S and 12 + 00S. The area is at least 350 metres long and 100 metres wide. Samples within this zone contain up to 20 per cent cinnabar and between 52.1 ppm and 5.98 per cent mercury. The mineralized zones occur in areas of poor exposures and heavy vegetation cover.

MINFILE: 104N 049

Maui A.R. 17723 REPORT YEAR: 1988, 15 Pages

OPERATOR(S): **Tymar Management**
AUTHOR(S): McConnell, G.W.
MINING DIV: Atlin
LOCATION: NTS 104N04E LAT. 59 01 00 LONG. 133 40 00
CLAIM(S): Maui
EXPL. TARGET: Gold
WORK DONE: PROS 500.0 ha

GEOLOGY: The property is underlain by lenses of rhyolite breccia which has been fractured and mineralized with fine-grained pyrite.

Lodequest A.R. 17827 REPORT YEAR: 1988, 15 Pages, 1 Map(s)

OPERATOR(S): **Lusk, B.**
AUTHOR(S): Davidson, G.S.
MINING DIV: Atlin
LOCATION: NTS 104N05E LAT. 59 28 00 LONG. 133 34 00
CLAIM(S): Lodequest 1-11
WORK DONE: LINE 16.0 km
MAGG 14.4 km - 1 Map(s); 1:2500

GEOLOGY: The property is underlain by the Paleozoic Cache Creek Group and by the Atlin Intrusion. The Atlin instrusives are bodies of serpentinized peridotite. Quartz veining and fracture zones contain gold bearing sulphide minerals are developed in the Cache Creek rocks close to the sills of serpentinized peridotite.

Hey Hay A.R. 16820 REPORT YEAR: 1987, 15 Pages

OPERATOR(S): **Hayward, D. Heynen, G.**
AUTHOR(S): Freeze, J.C.
MINING DIV: Atlin
LOCATION: NTS 104N11W LAT. 59 39 46 LONG. 133 25 59
CLAIM(S): Hey Hay 1-2,Hey Hay 4
WORK DONE: PROS 1.0 ha
RECL 1.0 ha
SAMP 8 sample(s);ME

GEOLOGY: The property is underlain by Permian-Pennsylvanian Cache Creek Group greenstone intercalated with small limestone and quartzite sections.

Lakeview A.R. 17440 REPORT YEAR: 1988, 647 Pages, 24 Map(s)

OPERATOR(S): **Cream Silver Mines**
AUTHOR(S): Dandy, L.
MINING DIV: Atlin
LOCATION: NTS 104N11W LAT. 59 38 00 LONG. 133 25 00
CLAIM(S): B 1-3,Before 5-6,GDC 1-2,GDC 5,Yam 1,Yam 3
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 2402.0 m 25 hole(s);NQ - 1 Map(s); 1:5000
EMGR 26.0 km; VLF - 4 Map(s); 1:5000,1:2500
GEOL 1500.0 ha - 7 Map(s); 1:25 000,1:2500
LINE 23.0 km
MAGG 35.0 km - 8 Map(s); 1:5000,1:2500
ROAD 4.0 km
ROCK 2582 sample(s);ME
ROTD 355.6 m 24 hole(s) - 1 Map(s); 1:1250
SAMP 7 sample(s);BULK;AU,AG - 1 Map(s); 1:2500
SOIL 875 sample(s);ME - 2 Map(s); 1:2500
TREN 1200.0 m 9 trench(es)

GEOLOGY: The property is underlain by Pennsylvanian and Permian Cache Creek Group metasedimentary rocks, talcose ultramafic intrusives, and a Cretaceous alaskite stock. Locally the older rocks are capped by Tertiary olivine basalt flows and scoria. Mineralization consists of gold-bearing quartz veins and silver and base metal-bearing cherty argillite.

MINFILE: 104N 006, 104N 009, 104N 010, 104N 027, 104N 056, 104N 073, 104N 080, 104N 105

O6 A.R. 17348 REPORT YEAR: 1988, 48 Pages

OPERATOR(S): **Texoro Res.**
AUTHOR(S): Dandy, L.
MINING DIV: Atlin
LOCATION: NTS 104N11W LAT. 59 36 14 LONG. 133 19 06
CLAIM(S): O6
EXPL. TARGET: Gold
WORK DONE: HMIN 1 sample(s);ME
MAGG 2.0 km
ROAD 2.0 km
ROCK 12 sample(s);ME
SOIL 93 sample(s);ME
TREN 300.0 m 3 trench(es)

GEOLOGY: The claims are underlain by Permo-Pennsylvanian Cache Creek Group metasediments and volcanics intruded by Pennsylvanian and Permian ultramafics and a Cretaceous alaskite stock. The ultramafics are extensively carbonatized or serpentinized. Because of limited outcrop exposures it is difficult to obtain specific structural information, however, it appears that several folds and minor faults are present.

Spruce Creek A.R. 17165 REPORT YEAR: 1988, 188 Pages, 12 Map(s)

OPERATOR(S): **Placer Dome**

AUTHOR(S): Price, S. Gareau, M.B.

MINING DIV: Atlin

LOCATION: NTS 104N11W LAT. 59 33 06 LONG. 133 28 49

CLAIM(S): Karen 7

EXPL. TARGET: Gold,Silver

WORK DONE: DIAD 1399.3 m 10 hole(s);NQ - 12 Map(s); 1:5000,1:1000

SAMP 564 sample(s);AU,AG,AS,SB,NI

GEOLOGY: The claims occur in the Atlin terrane, a fault bounded independant entity of the Intermontane Belt consisting of Upper Paleozoic sedimentary, volcanic and ultramafic rocks intruded by Mesozoic granite and quartz monzonite plutons. Tertiary and Quaternary volcanic rocks form the youngest unit within the terrane.

MINFILE: 104N

Spruce Creek (Shuksan) A.R. 17146 REPORT YEAR: 1987, 101 Pages, 23 Map(s)

OPERATOR(S): **Placer Dev.**

AUTHOR(S): Thornton, J.M.

MINING DIV: Atlin

LOCATION: NTS 104N11W, 104N12E LAT. 59 32 50 LONG. 133 28 57

CLAIM(S): Shuksan 1,Shuksan 4,Karen 6-7

EXPL. TARGET: Gold

WORK DONE: EMGR 37.2 km;VLF - 8 Map(s); 1:5000,1:2500

IPOL 2.9 km - 8 Map(s); 1:2500,1:1000

MAGG 37.2 km - 7 Map(s); 1:5000,1:2500

GEOLOGY: A tongue of serpentinized ultramafic rock of the Permo-Pennsylvanian Atlin Intrusions extends northeasterly from the ultramafic body on Union Mountain, under the valley of Dominion Creek. Locally the rocks are intensely carbonate altered. Shear zones trend northeasterly. The country rock is believed to be greenstone and minor metasediments of the similar aged Cache Creek Group.

RELATED A.R.: 10502, 11138, 11511, 13410, 15062, 15545, 16006

MINFILE: 104N 098

Balsam A.R. 17494 REPORT YEAR: 1988, 17 Pages, 2 Map(s)

OPERATOR(S): **Homestake Min. Dev.**

AUTHOR(S): McIvor, D.F.

MINING DIV: Atlin

LOCATION: NTS 104N12E LAT. 59 36 19 LONG. 133 37 58

CLAIM(S): Balsam

WORK DONE: GEOL 400.0 ha - 2 Map(s); 1:2000

ROCK 22 sample(s);ME

GEOLOGY: Permo-Pennsylvanian Cache Creek Group andesites are intruded by Permian ultramafics and Cretaceous granites. The contact between andesites and ultramafics is structural and is the site of hydrothermal alteration (silicification/carbonatization) containing weak gold and associated trace element anomalies.

Cal A.R. 17084 REPORT YEAR: 1988, 12 Pages, 6 Map(s)

OPERATOR(S): **Homestake Min. Dev.**

AUTHOR(S): McIvor, D.F.

MINING DIV: Atlin

LOCATION: NTS 104N12E LAT. 59 34 46 LONG. 133 32 47

CLAIM(S): Cal II

EXPL. TARGET: Gold

WORK DONE: EMGR 47.5 km;VLF - 2 Map(s); 1:5000

LINE 47.5 km

MAGG 47.5 km - 4 Map(s); 1:5000

GEOLOGY: The claims are underlain by Permian-Pennsylvanian Cache Creek Group andesites and Permian ultramafic intrusives.

Deer A.R. 17245 REPORT YEAR: 1988, 8 Pages

OPERATOR(S): **White, B.**

AUTHOR(S): White, B.

MINING DIV: Atlin

LOCATION: NTS 104N12E LAT. 59 37 00 LONG. 133 40 00

CLAIM(S): Deer

EXPL. TARGET: Gold

WORK DONE: PROS 500.0 ha

TREN 30.0 m

GEOLOGY: The main rock is the Fourth of July Creek Batholith, which is in contact with greenstone and ultramafic rocks at the far eastern corner of the property.

Heart of Gold A.R. 17768 REPORT YEAR: 1988, 59 Pages, 6 Map(s)

OPERATOR(S): **Canova Res.**

AUTHOR(S): Collins, D.A.

MINING DIV: Atlin

LOCATION: NTS 104N12E LAT. 59 33 00 LONG. 133 37 00

CLAIM(S): Anna 1-8,Millionaire,Porsche,Goldstar,Goldstar 2

EXPL. TARGET: Gold,Silver

WORK DONE: GEOL 400.0 ha - 1 Map(s); 1:5000

LINE 20.0 km

MAGG 20.0 km - 3 Map(s); 1:2000

SOIL 297 sample(s);ME - 2 Map(s); 1:5000

GEOLOGY: The underlying rocks are of the Upper Paleozoic oceanic crust, which are correlated with the Cache Creek Group. These rocks are intruded by a suite of Mississippian-Pennsylvanian serpentinized ultramafics. Mineralized quartz-talc alteration assemblages occur where east-northeast trending faults crosscut serpentinite.

RELATED A.R.: 17997

MINFILE: 104N 019, 104N 030, 104N 101

Heart of Gold A.R. 17997 REPORT YEAR: 1988, 203 Pages, 21 Map(s)

OPERATOR(S): **Homestake Min. Dev.** **Canova Res.**

AUTHOR(S): McIvor, D.F.

MINING DIV: Atlin

LOCATION: NTS 104N12E LAT. 59 33 00 LONG. 133 38 00

CLAIM(S): Porsche,Millionaire,Goldstar 1-2,Anna 1-8

EXPL. TARGET: Gold

WORK DONE: DIAD 600.3 m 5 hole(s);NQ - 5 Map(s); 1:200

EMAB 110.0 km;VLF - 2 Map(s); 1:10 000

EMGR 39.0 km;VLF - 3 Map(s); 1:5000

GEOL 500.0 ha - 4 Map(s); 1:2000,1:5000,1:10 000
LINE 44.0 km
MAGA 110.0 km - 3 Map(s); 1:10 000
MAGG 39.0 km - 4 Map(s); 1:5000
ROAD 5.0 km
ROCK 22 sample(s);AU,ME
SAMP 543 sample(s);AU,ME

GEOLOGY: The property is predominantly underlain by Permian ultramafic intrusive rocks, in contact with intercalated andesites and cherts of the Pennsylvanian Cache Creek Group. The contacts appear to be structural, and are the site of strong hydrothermal alteration in both the ultramafics (to a silica - carbonate - mariposite assemblage), and andesites (to a silica - carbonate assemblage). Anomalous gold values have been returned from within these alteration zones.

MINFILE: 104N 101

Jack A.R. 16821 REPORT YEAR: 1987, 12 Pages

OPERATOR(S): **Homestake Min. Dev.**
AUTHOR(S): McIvor, D.F.
MINING DIV: Atlin
LOCATION: NTS 104N12E LAT. 59 35 11 LONG. 133 41 00
CLAIM(S): Jack 29
WORK DONE: GEOL 150.0 ha
ROCK 6 sample(s);ME

GEOLOGY: Argillaceous sediments of the Permian-Pennsylvanian Cache Creek Group underly the majority of the property. No significant alteration or mineralization was encountered during mapping.

Lear A.R. 17495 REPORT YEAR: 1988, 32 Pages, 7 Map(s)

OPERATOR(S): **Homestake Min. Dev.**
AUTHOR(S): McIvor, D.F.
MINING DIV: Atlin
LOCATION: NTS 104N12E LAT. 59 36 38 LONG. 133 36 11
CLAIM(S): Nanaimo,Lucky Liverpool,Paris Exhibition,Unknown,Nimrod,Imperial,Sultan Fr.,Transit Fr., Princess Pat,Pilot,Raf,Observer
EXPL. TARGET: Gold
WORK DONE: GEOL 150.0 ha - 7 Map(s); 1:2500,1:1000,1:100
ROCK 245 sample(s);ME

GEOLOGY: The claims are underlain by Permo-Pennsylvanian Cache Creek Group andesites and Permian ultramafic rocks. Contacts between the two units appears to be structural, often with associated hydrothermal alteration and weak gold enrichment.

MINFILE: 104N 008

Pictou A.R. 17656 REPORT YEAR: 1988, 65 Pages, 22 Map(s)

OPERATOR(S): **Homestake Min. Dev.**
AUTHOR(S): McIvor, D.F.
MINING DIV: Atlin
LOCATION: NTS 104N12E LAT. 59 34 00 LONG. 133 40 00
CLAIM(S): Pictou,Scarab
EXPL. TARGET: Gold,Silver
WORK DONE: EMGR 9.4 km;VLF - 3 Map(s); 1:5000
GEOL 50.0 ha - 4 Map(s); 1:100,1:200,1:10000
IPOL 9.4 km - 5 Map(s); 1:2500
LINE 9.4 km
MAGG 9.4 km - 3 Map(s); 1:5000
ROCK 163 sample(s);ME - 2 Map(s); 1:100,1:1000
SOIL 492 sample(s);ME - 5 Map(s); 1:100,1:1000
STRI 0.1 ha

GEOLOGY: Pennsylvanian-Permian Cache Creek Group andesites are intruded by Permian ultramafics. Intensive silica-carbonate-mariposite alteration in ultramafics is proximal to the tectonic contact with andesites. Thin quartz stringers in altered ultramafics carry anomalous gold-silver.

RELATED A.R.: 16535
MINFILE: 104N 044

Reef A.R. 17493 REPORT YEAR: 1988, 17 Pages, 1 Map(s)

OPERATOR(S): **Homestake Min. Dev.**
AUTHOR(S): McIvor, D.F.
MINING DIV: Atlin
LOCATION: NTS 104N12E LAT. 59 35 05 LONG. 133 37 24
CLAIM(S): Reef
WORK DONE: GEOL 350.0 ha - 1 Map(s); 1:2000
LINE 22.5 km
ROCK 5 sample(s);ME

GEOLOGY: Permo-Pennsylvanian Cache Creek Group volcanics and Permian ultramafic intrusive rocks have structural contacts with associated hydrothermal alteration (silicification, carbonatization) containing sporadic quartz veins weakly anomalous in gold.

South Atlin A.R. 17545 REPORT YEAR: 1988, 30 Pages, 10 Map(s)

OPERATOR(S): **Homestake Min. Dev.**
AUTHOR(S): McIvor, D.F.
MINING DIV: Atlin
LOCATION: NTS 104N12E LAT. 59 33 00 LONG. 133 41 00
CLAIM(S): YJ 13-14,Jack 6
EXPL. TARGET: Gold
WORK DONE: SOIL 416 sample(s);ME - 10 Map(s); 1:1000

GEOLOGY: The property is underlain by Permian ultramafic intrusive rocks which exhibit varying intensities of alteration. The alteration ranges from serpentinization to complete silica-carbonate-mariposite alteration.

RELATED A.R.: 16535, 17656
MINFILE: 104N 046

Spruce Creek A.R. 16703 REPORT YEAR: 1987

OPERATOR(S): **Carnes Creek Ex.**
AUTHOR(S): Krueckl, G.
MINING DIV: Atlin
LOCATION: NTS 104N12E LAT. 59 33 51 LONG. 133 32 43
CLAIM(S): Placer Lease 1465,Placer Lease 1707-1708,Placer Lease 12247,Placer Lease 13213
WORK DONE: META 18 sample(s)
PITS 2 pit(s)
ROTD 1399.2 m 27 hole(s)
SAMP 365 sample(s);AU
SEIS 5.5 km
STRI

GEOLOGY: Exploration has indicated gold-bearing red Tertiary river gravels, gold-bearing blue-grey reworked Tertiary or Pleistocene

overburden and a gold-bearing esker. Volcanic and ultramafic rocks compose local bedrock geology.
RELATED A.R.: 04551, 04843, 16560

Spruce Creek A.R. 17349 REPORT YEAR: 1988, 11 Pages, 6 Map(s)

OPERATOR(S): **Carnes Creek Ex.**
AUTHOR(S): Hillman, R.A.
MINING DIV: Atlin
LOCATION: NTS 104N12E LAT. 59 34 00 LONG. 133 34 21
CLAIM(S): Placer Lease 13377
EXPL. TARGET: Gold
WORK DONE: SEIS 0.9 km - 6 Map(s); 1:2500,1:1500
GEOLOGY: The present Spruce Creek valley parallels a very large Tertiary river channel cut into the "gold series" of pyroxenites, greenstones and magnesian rocks. This Tertiary valley in-filled to a depth of 24.4-30.5 metres with reddish coloured gold-bearing gravels covered by approximately 60.9 metres of grey glacial gravels.

YJ 5 A.R. 17543 REPORT YEAR: 1988, 15 Pages, 1 Map(s)

OPERATOR(S): **Homestake Min. Dev.**
AUTHOR(S): McIvor, D.F.
MINING DIV: Atlin
LOCATION: NTS 104N12E LAT. 59 34 00 LONG. 133 39 00
CLAIM(S): YJ 5
EXPL. TARGET: Gold,Silver,Arsenic
WORK DONE: GEOL 400.0 ha - 1 Map(s); 1:2000
GEOLOGY: The property is underlain predominantly by Permain ultramafic intrusive rocks, minor Pennsylvanian Cache Creek Group andesitic volcanics, with minor hydrothermal (silica-carbonate-mariposite) alteration of ultramafics proximal to contact with andesites. A sample returned anomolous values of gold silver, arsenic and antimony.

YJ 7-8 A.R. 17544 REPORT YEAR: 1988, 15 Pages, 2 Map(s)

OPERATOR(S): **Homestake Min. Dev.**
AUTHOR(S): McIvor, D.F.
MINING DIV: Atlin
LOCATION: NTS 104N12E LAT. 59 37 00 LONG. 133 32 00
CLAIM(S): YJ 7-8
EXPL. TARGET: Gold,Silver,Arsenic
WORK DONE: GEOL 1000.0 ha - 2 Map(s); 1:2500
GEOLOGY: The property is underlain by intercalated Pennsylvanian volcanics and carbonate rocks of the Cache Creek Group and Permian ultramafic intrusive rocks. The contact between two sites of structurally controlled hydrothermal alteration (silicification, carbonatization), with sporadic quartz stringers was examined.

Yellowjacket A.R. 17546 REPORT YEAR: 1988, 279 Pages, 6 Map(s)

OPERATOR(S): **Homestake Min. Dev.**
AUTHOR(S): McIvor, D.F.
MINING DIV: Atlin
LOCATION: NTS 104N12E LAT. 59 36 00 LONG. 133 33 00
CLAIM(S): Arent I-II,Beama,Zip,Rip,Wind II,YJ 7-8,Balsam,Pictou,Jack 29,CG 721
WORK DONE: ROAD 50.0 km
ROTD 2195.0 m 45 hole(s) - 6 Map(s); 1:100,1:1000,1:10 000,1:20 000
SAMP 1136 sample(s);AU,ME
GEOLOGY: Pennsylvanian/Permian Cache Creek Group andesites are intruded by Permian ultramafics. At the contact, structurally controlled hydrothermal alteration consisting of silicification and carbonatization contains sporadic thin high grade gold quartz veins.
RELATED A.R.: 17492
MINFILE: 104N 030, 104N 043, 104N 007, 104N 044, 104N 045

Yellowjacket A.R. 17305 REPORT YEAR: 1988, 446 Pages, 19 Map(s)

OPERATOR(S): **Homestake Min. Dev.**
AUTHOR(S): Marud, D.E.
MINING DIV: Atlin
LOCATION: NTS 104N12E LAT. 59 35 46 LONG. 133 32 48
CLAIM(S): Arent 2,Wedge Fr. (L.521),Discovery (L.184)
EXPL. TARGET: Gold
WORK DONE: DIAD 715.0 m 5 hole(s);HQ ,NQ - 19 Map(s); 1:1200,1:1000
SAMP 285 sample(s);AU
GEOLOGY: Permo-Pennsylvanian volcanic rocks of the Cache Creek Group are in fault contact with ultramafic rocks of the Permian Atlin Intrusions. The faulted contact is the site of hydrothermal alteration (silicification and carbonatization) of the volcanics and ultramafics. Locally good gold values are hosted by quartz veins adjacent to the contact.
RELATED A.R.: 15683, 15746, 17295
MINFILE: 104N 043

Yellowjacket A.R. 17295 REPORT YEAR: 1988, 446 Pages, 19 Map(s)

OPERATOR(S): **Homestake Min. Dev.**
AUTHOR(S): Marud, D.E.
MINING DIV: Atlin
LOCATION: NTS 104N12E LAT. 59 35 46 LONG. 133 32 48
CLAIM(S): Arent 1,Beama
EXPL. TARGET: Gold
WORK DONE: DIAD 1839.0 m 10 hole(s);HQ ,NQ - 19 Map(s); 1:1200,1:1000
SAMP 733 sample(s);AU
GEOLOGY: Permo-Pennsylvanian volcanic rocks of the Cache Creek Group are in fault contact with ultramafic rocks of the Permian Atlin Intrusions. The faulted contact is the site of hydrothermal alteration (silicification and carbonatization) of the volcanics and ultramafics. Locally good gold values are hosted by quartz veins adjacent to the contact.
RELATED A.R.: 15683, 15740
MINFILE: 104N 043

Yellowjacket A.R. 16712 REPORT YEAR: 1987

OPERATOR(S): **Homestake Min. Dev.**
AUTHOR(S): Marud, D.E.
MINING DIV: Atlin
LOCATION: NTS 104N12E LAT. 59 35 48 LONG. 133 32 53
CLAIM(S): Arent 1-2,Wedge Fr.,Discovery
WORK DONE: DIAD 2553.6 m 15 hole(s);HQ
SAMP 1540 sample(s);AU
GEOLOGY: The Yellowjacket zone lies roughly on the contact of serpentinized ultramafics of the Atlin Intrusions to the north and andesites of the Permian-Pennsylvanian Cache Creek Group to the south. Gold mineralization occurs in quartz vein structures.

ATLIN 104N

RELATED A.R.: 15683, 15740

Yellowjacket North A.R. 17492 REPORT YEAR: 1988, 18 Pages, 10 Map(s)

OPERATOR(S): **Homestake Min. Dev.**
AUTHOR(S): McIvor, D.F.
MINING DIV: Atlin
LOCATION: NTS 104N12E LAT. 59 36 08 LONG. 133 33 34
CLAIM(S): Arent 1,Top 1-2,Wind 1,Gin,Tonic,YJ 7,YJ 17 Fr.
WORK DONE: EMGR 25.6 km;VLF - 3 Map(s); 1:5000
GEOL 250.0 ha - 2 Map(s); 1:2000
LINE 34.6 km
MAGG 25.6 km - 5 Map(s); 1:5000
ROCK 17 sample(s);ME
GEOLOGY: The claims are underlain by Permo-Pennsylvanian Cache Creek Group andesitic volcanics and Permian mafic and ultramafic intrusives. No significant alteration or mineralization is evident.
MINFILE: 104N 043

JENNINGS RIVER 104O

Midway A.R. 16899 REPORT YEAR: 1987, 30 Pages, 1 Map(s)

OPERATOR(S): **Regional Res.**
AUTHOR(S): Thalenhorst, H.
MINING DIV: Liard
LOCATION: NTS 104O16E LAT. 59 56 00 LONG. 130 20 00
CLAIM(S): Bull 1
EXPL. TARGET: Silver,Lead,Zinc
WORK DONE: DIAD 150.9 m 1 hole(s); HQ,NQ - 1 Map(s); 1:5000,1:1000
SAMP 4 sample(s);AU,AG,PB,ZN
GEOLOGY: Silver-lead-zinc-bearing sulphides occur in tube-shaped bodies hosted by Devonian McDame carbonate rocks.
RELATED A.R.: 15560
MINFILE: 104O 038, 104O 047

Anne A.R. 16902 REPORT YEAR: 1987, 12 Pages

OPERATOR(S): **Campbell Res.**
AUTHOR(S): Medford, G.A.
MINING DIV: Liard
LOCATION: NTS 104O16W LAT. 59 54 52 LONG. 130 27 36
CLAIM(S): Anne
WORK DONE: SOIL 40 sample(s);CU,PB,ZN,AG
GEOLOGY: The claims are located on the contact of the Cassiar Batholith with Cambrian Atan(?) Group metasediments.

Silverknife A.R. 17113 REPORT YEAR: 1987, 77 Pages, 4 Map(s)

OPERATOR(S): **Teryl Res.**
AUTHOR(S): Medford, G.A.
MINING DIV: Liard
LOCATION: NTS 104O16W LAT. 59 55 54 LONG. 130 22 28
CLAIM(S): Silverknife 1-2
EXPL. TARGET: Silver,Lead,Zinc,Gold,Tin
WORK DONE: DIAD 1822.4 m 17 hole(s); NQ, HQ - 4 Map(s); 1:5000,1:500,1:250
SAMP 190 sample(s);AU,AG,PB,ZN
GEOLOGY: Sphalerite and argentiferous galena occur in a 60 degrees north dipping fracture in Cambrian limestone and dolomite. Mineralization follows host carbonate dissolution and replacement by a "fleshy" dolomite alteration. Many large cavities are present. Late white calcite heals fractures and often contains clasts of mineralization and "fleshy" dolomite. Pyrite content may be up to 15 per cent.
RELATED A.R.: 14737
MINFILE: 104O 048

MCDAME 104P

Hunter A.R. 17613 REPORT YEAR: 1988, 234 Pages, 2 Map(s)

OPERATOR(S): **Erickson Gold Min.**
AUTHOR(S): Sebert, C.
MINING DIV: Liard
LOCATION: NTS 104P04E LAT. 59 11 05 LONG. 129 31 36
CLAIM(S): Hunter 1-12
EXPL. TARGET: Gold,Silver
WORK DONE: DIAD 799.4 m 12 hole(s);NQ - 2 Map(s); 1:500
SAMP 76 sample(s);AU,AG
GEOLOGY: Gold-silver bearing quartz veins up to 1.8 metres in width, striking east and dipping 45 degrees to the north, are hosted between argillites and metasomatized ultramafics of the Devonian-Triassic Sylvester Allochthon.
RELATED A.R.: 09754, 15214
MINFILE: 104P 034

Nome A.R. 17666 REPORT YEAR: 1988, 38 Pages, 6 Map(s)

OPERATOR(S): **Lo, B.S. Lo, P.**
AUTHOR(S): Sookochoff, L.
MINING DIV: Liard
LOCATION: NTS 104P04E LAT. 59 10 00 LONG. 129 40 00
CLAIM(S): Nome 1,Nome 3
WORK DONE: SOIL 421 sample(s);ME - 6 Map(s); 1:250
GEOLOGY: The area is underlain by Devonian and Missippian Sylvester Group rocks in which chert and argillite are the dominant lithological units with greenstone subordinate. Greenstones predominate on the property with interbedded dark green chert beds. The chert (on the Nome 3 claim) contains up to 5 per cent pyrite. Within the gossan zone on the Nome 3 claim are numerous easterly trending steep dipping quartz veins. The quartz veins either contain up to 3 per cent pyrite and occasional tetrahedrite and mariposite or are barren bull quartz veins.
RELATED A.R.: 16186

Nu Tara A.R. 17615 REPORT YEAR: 1988, 1346 Pages, 11 Map(s)

OPERATOR(S): **Erickson Gold Min.**
AUTHOR(S): Lehtinen, J.
MINING DIV: Liard
LOCATION: NTS 104P04E LAT. 59 11 04 LONG. 129 41 54
CLAIM(S): Nu Tara
EXPL. TARGET: Gold
WORK DONE: DIAD 5219.1 m 54 hole(s);BQ - 6 Map(s); 1:5000,1:500
PERD 2603.5 m 28 hole(s) - 5 Map(s); 1:500
SAMP 2138 sample(s);AU,AG

GEOLOGY: The claim is underlain by Devono-Mississippian Sylvester Group metabasalt to andesite, altered volcanics, cherts and tuffs. Serpentinite-listwanite of unknown age is also evident. Gold occurs in quartz veins up to 2.5 metres in width with east to northeast strike and steep to near vertical dips.
MINFILE: 104P

Pete A.R. 17614 REPORT YEAR: 1988, 50 Pages, 3 Map(s)

OPERATOR(S): **Erickson Gold Min.**
AUTHOR(S): Lehtinen, J.
MINING DIV: Liard
LOCATION: NTS 104P04E LAT. 59 10 00 LONG. 129 40 00
CLAIM(S): Pete
EXPL. TARGET: Gold
WORK DONE: IAD 368.9 m 2 hole(s) - 3 Map(s); 1:1000
GEOLOGY: The property is underlain by Mississippian to Permian Sylvester Group meta-basalts and andesites. Gold in quartz veins occur in carbonate altered volcanics. Vein widths are up to 4.5 metres with an east to northeast strike and near a vertical dip.

Taurus Gold Mine A.R. 16777 REPORT YEAR: 1987

OPERATOR(S): **Taurus Res.**
AUTHOR(S): Spencer, B.E.
MINING DIV: Liard
LOCATION: NTS 104P05E LAT. 59 16 26 LONG. 129 42 03
CLAIM(S): Hanna 9,Mack 1
WORK DONE: DIAD 643.0 m 6 hole(s);BQ
SAMP 34 sample(s);AU
UNDV 206.0 m
GEOLOGY: The region is underlain by sediments and volcanics of the Devonian-Mississippian Sylvester Group. Low angle thrust faults and normal east striking faults are the dominant structural features. Gold-bearing quartz veins occur in greenstones, dip steeply south and have extensive wall rock alteration envelopes of pyrite and ankerite.
RELATED A.R.: 01990, 05493, 05783, 06974, 07545, 07897, 08226, 12560

McDame A.R. 16776 REPORT YEAR: 1987

OPERATOR(S): **Cassiar Min.**
AUTHOR(S): Minty, K.C.
MINING DIV: Liard
LOCATION: NTS 104P05W LAT. 59 19 00 LONG. 129 49 32
CLAIM(S): Goat 1-2
WORK DONE: RECL
UNDV 222.7 m
GEOLOGY: The McDame deposit occupies the central part of a serpentinite body lying within rocks of the Devonian-Mississippian Sylvester Group.
RELATED A.R.: 00091, 10655, 13820, 15702

Bad Bear A.R. 16780 REPORT YEAR: 1988, 12 Pages, 1 Map(s)

OPERATOR(S): **Colony Pacific Ex.**
AUTHOR(S): DeLancey, P.
MINING DIV: Liard
LOCATION: NTS 104P06W LAT. 59 16 21 LONG. 129 22 46
CLAIM(S): Bad Bear 1
EXPL. TARGET: Copper,Lead,Zinc,Tungsten,Silver
WORK DONE: SOIL 46 sample(s);ME - 1 Map(s); 1:5000
GEOLOGY: The property is underlain by a sequence of sedimentary rocks ranging from Cambrian (Atan Group) to Upper Devonian (McDame Group) in age. In the immediate area of the showings, faulting (McDame Fault) is common and the stratigraphy is complex. The copper-lead-zinc-tungsten showings outcrop in McDame Creek Canyon and are typified by relatively narrow zones of replacement and fracture controlled mineralization in limestones, dolomites and argillites. Skarn minerals are locally present.
RELATED A.R.: 13713
MINFILE: 104P 022

Goldbreak 25 A.R. 17107 REPORT YEAR: 1987, 50 Pages, 5 Map(s)

OPERATOR(S): **Chablis Res.**
AUTHOR(S): Cuttle, J.F.
MINING DIV: Liard
LOCATION: NTS 104P06W LAT. 59 23 00 LONG. 129 27 00
CLAIM(S): Goldbreak 25
EXPL. TARGET: Gold,Silver,Copper,Lead,Zinc
WORK DONE: EMGR 4.2 km; VLF - 1 Map(s); 1:2500
GEOL 500.0 ha - 2 Map(s); 1:5000,1:2500
LINE 4.2 km
MAGG 4.2 km - 1 Map(s); 1:2500
ROCK 30 sample(s);AU,AG,CU,PB,ZN
SOIL 168 sample(s);AU,AG,CU,PB,ZN - 1 Map(s); 1:2500
GEOLOGY: The property is underlain by alternating sequences of chemical sediments and lesser amounts of red-green and black shales, all of the Proterozoic Good Hope Group. Dolomite and ankerite lenses are possible replacement horizons conformable to bedding throughout the property. The high degree of slickensides along unit boundaries suggests fault contact or strike slip relationships. The present survey failed to identify significant mineralization or targets for additional exploration.

Az A.R. 17863 REPORT YEAR: 1988, 19 Pages

OPERATOR(S): **Baldys, C.**
AUTHOR(S): Baldys, C.
MINING DIV: Liard
LOCATION: NTS 104P12E LAT. 59 33 00 LONG. 129 31 00
CLAIM(S): Les,Sam
EXPL. TARGET: Gold,Silver,Lead,Zinc,Copper
WORK DONE: PROS 250.0 ha
ROCK 10 sample(s);ME
GEOLOGY: A silicified zone 10 to 15 metres wide includes 0.3 to 1 metre wide sulphide veins exposed along 300 metres. The veins are structurally controlled within platformal carbonates of Lower Cambrian Rosella Formstion. Mineralization includes massive to disseminated galena, coarse white quartz with chalcopyrite-barite-chalcocite, and late brecciated quartz with iron oxides and galena blebs.
MINFILE: 104P 106

Albert Creek A.R. 17826 REPORT YEAR: 1988, 119 Pages, 4 Map(s)

OPERATOR(S): **Total Erickson Res.**

AUTHOR(S): Rawsthorn, D.A.

MINING DIV: Liard

LOCATION: NTS 104P13E LAT. 59 53 56 LONG. 129 33 38

CLAIM(S): Ace 2

EXPL. TARGET: Lead,Zinc,Silver,Gold

WORK DONE: DIAD 797.9 m 3 hole(s);NQ - 4 Map(s); 1:50 000,1:500
SAMP 158 sample(s);ME

GEOLOGY: Devonian-Mississippian Sylvester Group black clastic rocks are steeply overthrusted to the northeast by younger Upper Devonian McDame Group carbonates. Weak silver mineralization occurs as fracture coatings in dolomite breccia. Anomalous zinc and barium are lithologically controlled by pyritic graphitic argillites and dolomites, respectively.

MINFILE: 104P 045

Roman A.R. 17618 REPORT YEAR: 1988, 56 Pages, 15 Map(s)

OPERATOR(S): **Samarkand Res.**

AUTHOR(S): Mark, D.G.

MINING DIV: Liard

LOCATION: NTS 104P15E LAT. 59 59 42 LONG. 128 35 13

CLAIM(S): Rom 2,J-M 2

EXPL. TARGET: Silver,Copper,Lead,Zinc

WORK DONE: GRAV 9.6 km - 1 Map(s); 1:5000
IPOL 11.3 km - 14 Map(s); 1:2500

GEOLOGY: Much of the property is underlain by a folded sequence of clastic sediments including shale, mudstone, chert, grit and sandstone that may correlate with the Earn Group of Devono-Mississippian age. The Main showing consists of patches of galena, sphalerite and tetrahedrite within zones of intense silicification; massive bedded pyrite in carbonaceous black shale; and narrow conformable lenses of massive, fine-grained galena and sphalerite in calcareous mudstones. The West showing consists of fine-grained bedded pyrite in carbonaceous black shale.

RELATED A.R.: 09855, 12731

MINFILE: 104P 072

Hyland River A.R. 17006 REPORT YEAR: 1988, 16 Pages

OPERATOR(S): **Baha Res.**

AUTHOR(S): Von Rosen, G.

MINING DIV: Liard

LOCATION: NTS 104P16E LAT. 59 54 31 LONG. 128 11 25

CLAIM(S): Placer Lease 20072,Placer Lease 7848

EXPL. TARGET: Gold

WORK DONE: META 3 sample(s)

GEOLOGY: Placer gold occurs as bar deposits and other localizations.

Hyland River Gold A.R. 16936 REPORT YEAR: 1988, 41 Pages

OPERATOR(S): **Baha Res. Spectra Ventures Chalice Min.**

AUTHOR(S): Von Rosen, G.

MINING DIV: Liard

LOCATION: NTS 104P16E LAT. 59 55 00 LONG. 128 10 00

CLAIM(S): Placer Leases 1610-1611,Placer Lease 7841,Placer Lease 7847,Placer Lease 7849

EXPL. TARGET: Gold

WORK DONE: LINE 15.0 km
MAGG 10.0 km

GEOLOGY: The ground magnetic survey successfully indicated magnetic signatures displaying the expected magnetic relief which may be indicative of black sand concentrations.

Gold Cord A.R. 17896 REPORT YEAR: 1988, 31 Pages, 6 Map(s)

OPERATOR(S): **Shirabob Gold Mine**
AUTHOR(S): Sanguinetti, M.H.
MINING DIV: Atlin
LOCATION: NTS 114P07E, 114P08W LAT. 59 27 00 LONG. 136 30 00
CLAIM(S): Ero 2,Karl 1-20
EXPL. TARGET: Gold
WORK DONE: EMGR 8.1 km;VLF - 3 Map(s); 1:2500
GEOL 198.0 ha - 1 Map(s); 1:2500
LINE 8.1 km
ROCK 29 sample(s);AU,AG
TOPO 4400.0 ha - 2 Map(s); 1:10 000
TREN 20.0 m 3 trench(es)
GEOLOGY: Property is underlain by Oligocene Tkope River Intrusions consisting of diorite and granodiorite which have intruded Paleozoic sediments and Triassic mafic volcanics. Sediments are limestone, argillites and shales which are altered to marble and hornfels along the intrusive contact. The Gold Cord vein is a white quartz vein occupying an east shear, the dip is to the north 30 to 80 degrees. The area was trenched over a strike length of 400 metres and width greater than 0.75 metres. Values ranged from trace to more than 4 ounces per ton gold.
RELATED A.R.: 13590
MINFILE: 114P 015

Tsirku (Jarvis) A.R. 17156 REPORT YEAR: 1988, 57 Pages, 15 Map(s)

OPERATOR(S): **Freeport Res.**
AUTHOR(S): Perkins, D.A.
MINING DIV: Atlin
LOCATION: NTS 114P07E LAT. 59 21 51 LONG. 136 30 56
CLAIM(S): Tsirku 3,Jarvis 15-16
EXPL. TARGET: Gold,Silver,Zinc,Copper,Lead,Barium/Barite
WORK DONE: DIAD 1433.0 m 5 hole(s);NQ - 15 Map(s); 1:5280,1:2000,1:500,1:50
SAMP 900 sample(s);ME
GEOLOGY: Stratiform polymetallic massive sulphides are hosted within an Upper Triassic-Jurassic package of intermediate to felsic volcaniclastic rocks and carbonaceous sediments. The unit(s) are over 100 metres in thickness and dip steeply to the west. Gold is found associated with carbonaceous phyllite and felsic intrusions.
MINFILE: 114P 064, 114P 068

Rime A.R. 18068 REPORT YEAR: 1988, 190 Pages, 5 Map(s)

OPERATOR(S): **Bond Gold Can.** **Newmont Mines**
AUTHOR(S): Vogt, A.
MINING DIV: Atlin
LOCATION: NTS 114P11W, 114P12W, 114P13E LAT. 59 44 00 LONG. 137 36 00
CLAIM(S): Rime 1-12,Rime 14-18,Rime 21-26,Rime 29,Rime 31-37
EXPL. TARGET: Copper,Zinc,Gold,Silver
WORK DONE: EMGR 20.0 km
GEOL 6125.0 ha - 3 Map(s); 1:10 000,1:50 000
LINE 23.2 km
MAGG 23.2 km - 2 Map(s); 1:10 000,1:5000
PETR 7 sample(s)
ROCK 284 sample(s);AU,ME
GEOLOGY: The property is inderlain by sequence of Upper Triassic volcano-sedimentary rocks of the Tats Complex within the Alexander Terrane. Volcanogenic massive sulphide mineralization is related to volcanic sediment contact.
MINFILE: 114P 061, 114P 054, 114P 053, 114P 055, 114P 035, 114P

Rime (Meredith) A.R. 17014 REPORT YEAR: 1987, 160 Pages, 4 Map(s)

OPERATOR(S): **Newmont Mines**
AUTHOR(S): Brisco, J.
MINING DIV: Atlin
LOCATION: NTS 114P11W, 114P12E LAT. 59 44 00 LONG. 137 32 00
CLAIM(S): Rime 8-9,Rime 11-12,Rime 29,Rime 31-37,Meredith III
EXPL. TARGET: Copper,Zinc,Lead,Cobalt,Gold,Silver
WORK DONE: DIAD 755.0 m 2 hole(s);NQ - 1 Map(s); 1:500
EMGR 20.0 km;HLEM
HMIN 18 sample(s);ME
LINE 40.0 km
MAGG 40.0 km - 2 Map(s); 1:2500
ROCK 188 sample(s);ME - 1 Map(s); 1:2500
SAMP 35 sample(s);ME
GEOLOGY: Triassic age volcanics are in contact with shales and sediments of the Tats Group within the Alexander Terrane. Massive sulphide mineralization occurs near the volcanic/sediment contact.
RELATED A.R.: 12225
MINFILE: 114P 052, 114P 055, 114P 061

Tats A.R. 16694 REPORT YEAR: 1987

OPERATOR(S): **Geddes Res.**
AUTHOR(S): Webster, M.
MINING DIV: Atlin
LOCATION: NTS 114P12E, 114P12W LAT. 59 39 11 LONG. 137 42 22
CLAIM(S): Alsek,Alsek 2-4,WC 14-16,WC 24,WC 26-27,WC 29,WC 42-43
WORK DONE: DIAD 346.3 m 4 hole(s);BQ
GEOL 1260.0 ha
MAGG 3.0 km
ROCK 250 sample(s);ME
SAMP 78 sample(s);AU,AG,CU,PB,ZN,CO,AS
TOPO 12800.0 ha
TREN 50.0 m 6 trench(es)
GEOLOGY: The project map area is dominated by basaltic flows and mafic intrusive rocks locally up to 200 metres thick.

Sulphide mineralization appears to be linked to a mafic extrusive (or exhalative) unit which has been loosely termed "banded iron formation".
RELATED A.R.: 09815, 10741, 11500, 11501, 12821, 15600

Tatshensini River A.R. 17124 REPORT YEAR: 1988, 96 Pages, 8 Map(s)

OPERATOR(S): **MDU Res.**
AUTHOR(S): McConnell, D.L.
MINING DIV: Atlin
LOCATION: NTS 114P15E, 114P15W LAT. 59 54 47 LONG. 136 45 26
CLAIM(S): Marilyn 1,Monroe 1,Mansfield 1-2,Jane 1,Jean 1,Harlow 1,Diane 1,Dors 1

TATSHENSHINI RIVER 114P

WORK DONE: EMAB 529.0 km;HLEM - 4 Map(s); 1:20 000
MAGA 529.0 km - 4 Map(s); 1:20 000

GEOLOGY: The property hosts a series of Lower Triassic ultramafic sills that intrude a suspected island arc assemblage consisting of Permian-Triassic mafic volcanic and volcaniclastic rocks. The package generally grades upward into clastic sedimentary rocks and limestones. Exploration targets consist of either primary segregated nickel-copper-platinum-palladium sulphides associated with the ultramafic sills or hydrothermal remobilized nickel-copper-platinum-palladium mineralization occurring in veins.

MINFILE: 114P 031, 114P 032

COAL
EXPLORATION

COALFIELD: **Telkwa - North**
PROPERTY: Bulkley
LOCATION: Lat. 55°7′ Long. 127°2′ NTS 93M/3
LICENSES: 8213-8216
OWNER: A. Mullan OPERATOR: Atna Resources
DESCRIPTION: Report pending
WORK DONE: Diad 457 m; 3 holes; geophysical logs
REFERENCES: None

COALFIELD: **Elk Valley**
PROPERTY: Burnt Ridge Extension, Horseshoe Ridge, Seam 3 & 4
LOCATION: Burnt Ridge Extension;
Lat. 50°05′ Long. 114°49′
Horseshoe Ridge, Seam 3 & 4;
Lat. 49°55′ Long. 114°45′
LICENSES: Burnt Ridge Extension; 271-274 & 276
Horseshoe Ridge, Seam 3 & 4; coal Lease 4
OWNER: Shell Canada Resources Ltd. OPERATOR: Crowsnest Resources Ltd.
DESCRIPTION: The properties are situated along the relatively simple Alexander Creek syncline. The Mist Mountain Formation contains seven coal seams greater than 2.8 m in thickness of up to 55 m. The seams range in rank from allow to medium volatile coal. Exploration was carried out:
I) in Burnt Ridge Extension on the west limb of the syncline
II) further south along the western limb of the syncline in what is now known as the 3 & 4 Seam area
WORK DONE: Rotd. 973 m; 10 holes
Rotd. 1580 m; 11 holes
Rotd. 1300 m; 13 holes
Geophysical logs
REFERENCES: Geol. fieldwork 1982, pages 20 - 26,
Coal in B.C., 1986 - 3- 25,
Exploration in B.C., q1987 - c414

COALFIELD: **Groundhog**
PROPERTY: Evans Creek
LOCATION: Lat. 57°55′ Long. 128°20′ NTS 104A/16
LICENSES: 7790-7821
OWNER/OPERATOR: Gulf Canada Resources
DESCRIPTION: Report pending
WORK DONE: geol. mapping
22 trenches, total 43 m
REFERENCES: None

COALFIELD: **Groundhog**
PROPERTY: Klappan
LOCATION: Lat. 57°15′ Long. 128°45′ NTS 93L/11
LICENSES: 7118-19, 7121-77, 7381-92, 7418, 7421-21, 7487-88, 7493-95, 7497-7504, 7506-08, 7510-23, 7527, 7529, 7533-36, 7538, 7559-61, 7726-30, 7746, 7750-52, 7754-57, 8032-44, 8047-48
OWNER/OPERATOR: Gulf Canada Resources
DESCRIPTION: The main coal seams occur in the tentatively named, middle Klappan sequence of the upper Jurassic to lower Cretaceous sediments. Major folds trending northwest are frequently overturned. A later phase of deformation has resulted in discontinued folds trending ea
WORK DONE: Diad 4765 m; 29 holes
33 trenches, total 325 m
geophysical logs

Mapping
The drilling and trenching took place in the lost fox area. The mapping included the Summit area as well.
REFERENCES: Geological Fieldwork: 1983-571; 1984-425; 1986-c476; 1987- c410

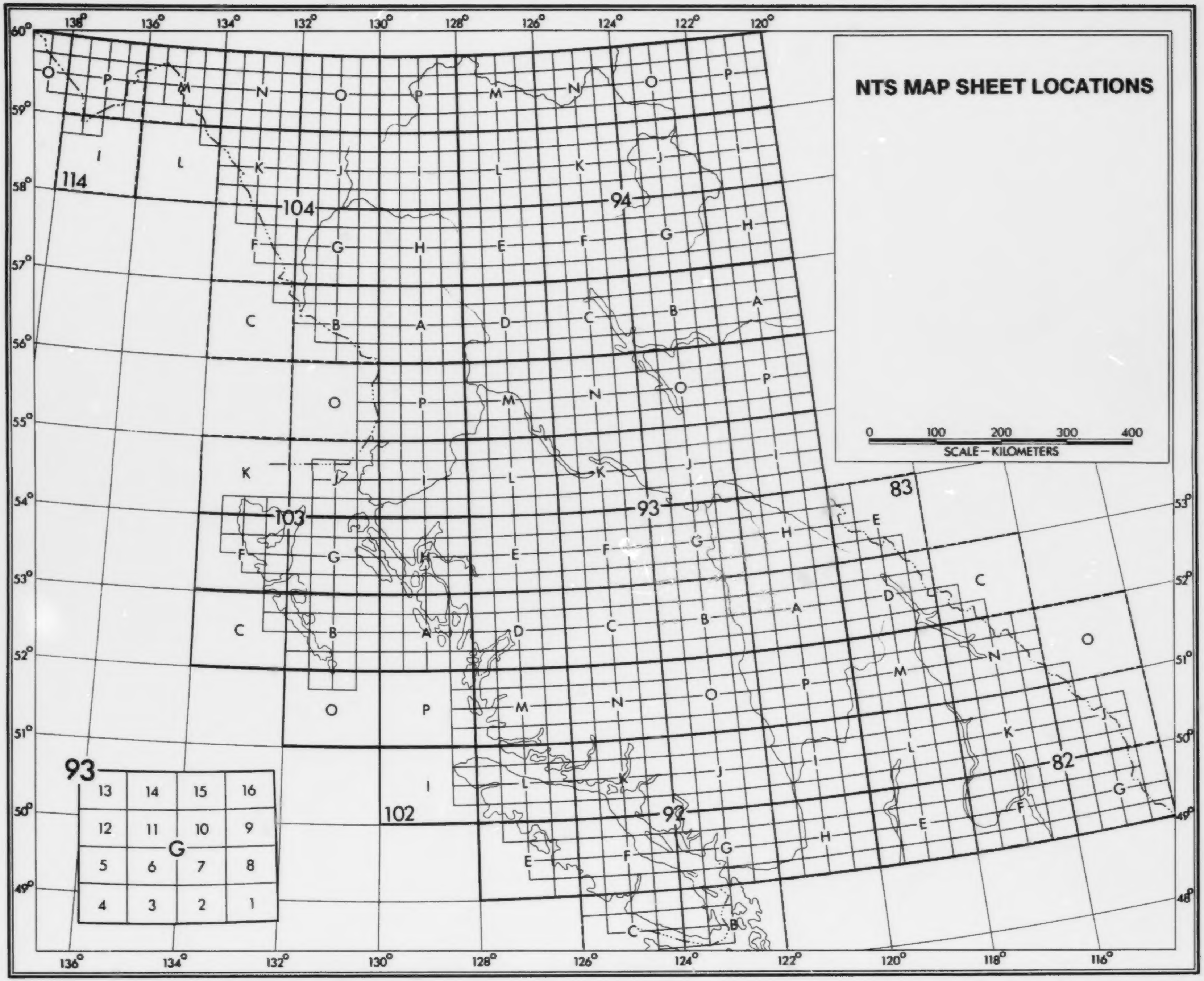
COALFIELD: **Comox**
PROPERTY: McIvor Lake
LOCATION: Lat. 50°01′ Long. 125°19′ NTS 92K/3 and 92F/14
LICENSES: 8265-8273
OWNER/OPERATOR: Canadian Occidental Petroleum Ltd.
DESCRIPTION: Report pending
WORK DONE: Rotd. 1708 m; 8 holes
Wireline 45 m
Geophysical logs
REFERENCES: None

COALFIELD: **Peace River**
PROPERTY: Monkman (I) Onion - Five Cabin Block
(II) Duke Mountain block south
LOCATION: Lat. 54°47′ Long. 120°55′ NTS 93I/15
LICENSES: (I) 3252-3259
(II) 3193, 3195-3205, 3940-3944, 3950-3952, 4522. 4523
OWNER: Petro-Canada Inc., Smokey River Holdings Ltd. OPERATOR: Petro-Canada Ltd.
Mobil Oil Ltd., Sumitomo Canada Ltd.
DESCRIPTION: (I) the licenses are underlain by lower Cretaceous rocks of the Fort St. John Group in which the main coal bearing horizons are in the Gates Formation. the structure is r elatively simple, that of a symmetrical syncline striking northwest and plunging southeast, dips vary from 50 to 60 degrees.
(II) the lower Cretaceous rocks are folded into a series on northwest anticlines and sunclines with extensive sub-parallel thrust faults.
WORK DONE: Mapping
RERENCES: GEM: 1973-583-585
Expl. in B.C.: 1975 -e220-e221; 1976-e219; 1978-e307; 1979-349-351; 1980-561; 1983-572; 1984-427

COALFIELD: **Peace River**
PROPERTY: Quintette
LOCATION: Lat. 55°00′ Long. 121°10′ NTS 93I/14 and 93P/3
LICENSES: 3335, 3339-3341, 3534, 3596, 3600, 3660-3662, 7845-7849
OWNER/OPERTOR: Quintette Coal Ltd.
DESCRIPTION: The five mineable seams are found in the middle member of the Gates Formation and total some 16.0 m in the Transfer area but diminishes down to 12 m in the Grizzly area. Northwest folding occurs with some minor thrustfaulting. In the Perry Creek area, the Gates Formation coal measures are prserved in an asymmetrical northwest trending syncline. J, & J2 Seams (corresponding to the Bullmoose mine to the north), have an aggregate thickness of 7.5 m, adjoining this hole and part of the same structural complex is the Wolverine Valley South area, to the southeast.
WORK DONE: In the Transfer Grizzly, Transfer North, Wolverine Valley South, and the Perry Creek area.
Rotd. 5737 m; 51 holes
Diad. 2347 m; 16 holes
Geophysical logs
REFERENCES: Northeast Coal Study 1977-37-42
Coal in B.C.: 1976-164-167
Coal in B.C.: 1986-3
Expl. in B.C.: 1976-e219; 1977-e270-e271; 1979-352; 1980-562; 1982-426; 1983-574, 1984-428

LOCATION
MAPS

NTS MAP SHEET LOCATIONS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SCALE — KILOMETERS
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ASSESSMENT REPORT LOCATION MAPS

Locations of Assessment Reports filed in the Province of British Columbia are presented on the 20 accompanying page-size location maps. Corresponding legends identify the page numbers which contain details of specific reports.

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082M
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092B/C
092F
092H
092I
092O
092P
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093A/H
093L
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094E
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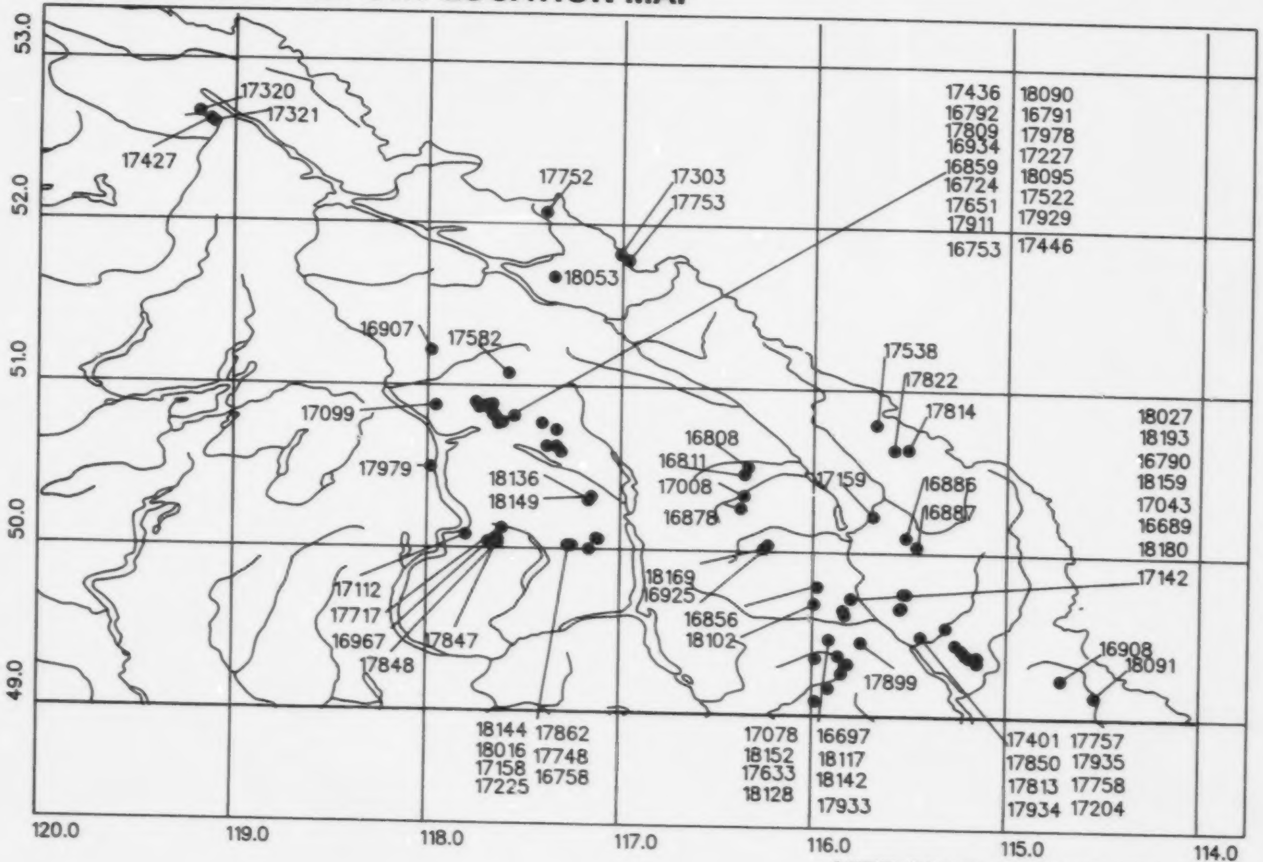
104A/B

ASSESSMENT REPORT LOCATION MAP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NTS MAP SHEET 082/083

NTS MAP SHEET 082G, J, K, N; 083C, D

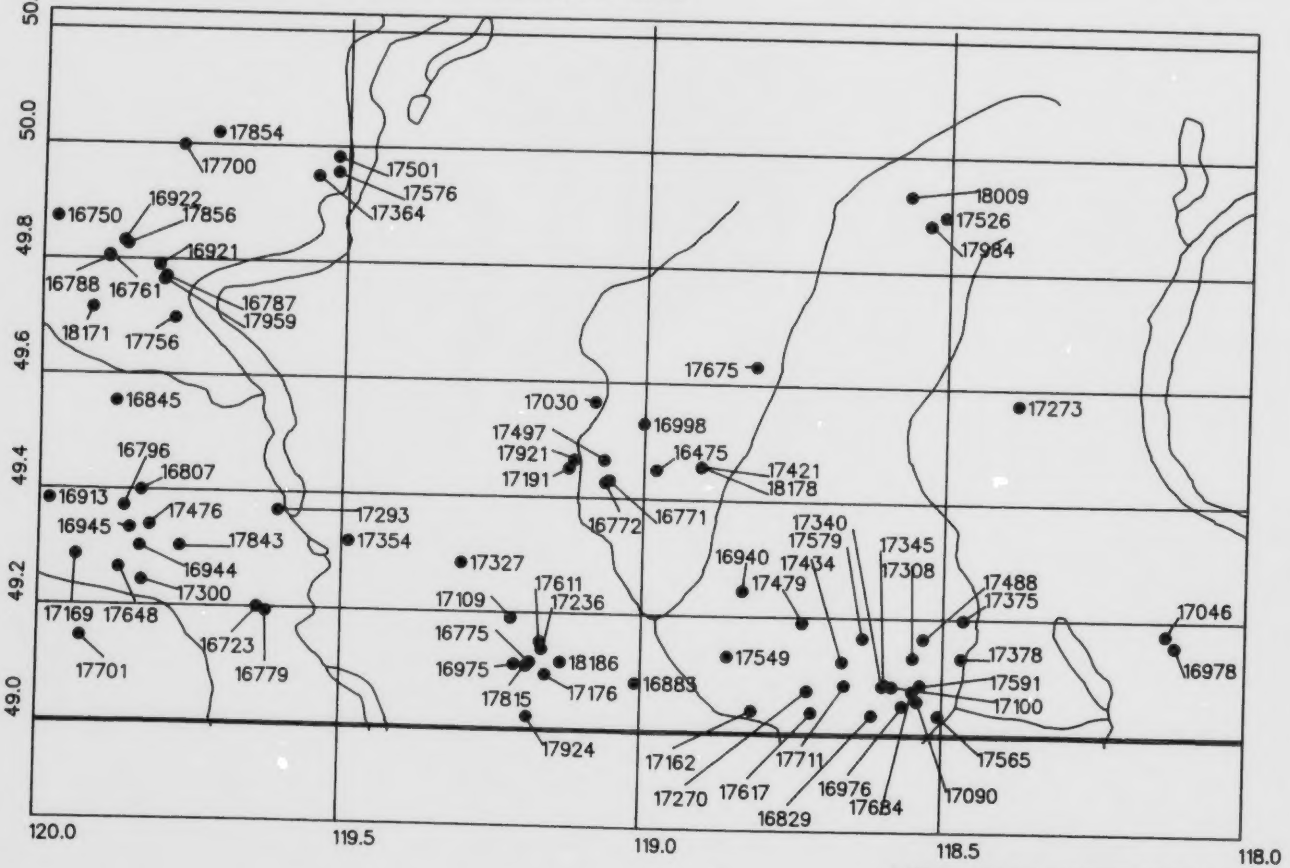
A.R.	Page	Property Name
NTS 082G/02		
16908	C41	Howell
18091	C41	Flathead
NTS 082G/04		
17078	C41	Top
17633	C41	Stoney
18152	C41	Stone
NTS 082G/05		
16697	C42	Bar
17899	C41	Vine
17933	C42	Vine
18117	C42	McNeil Creek
18128	C42	ML 62
18142	C42	Lamb
NTS 082G/06		
17401	C43	Aspen
17757	C42	Cedar
17758	C43	Dogwood
17813	C42	Dogwood
17850	C43	Cedar
17934	C43	Elderberry
17935	C43	Elderberry
NTS 082G/11		
17204	C43	Steeples
NTS 082G/12		
16689	C44	Pine
16790	C44	Peak
17043	C44	Wait
17142	C45	Wait
18027	C43	Golden Five
18102	C44	Sullivan
18159	C44	Tackle
18180	C44	Pine
18193	C44	Peak
NTS 082G/13		
16856	C45	Sullivan
NTS 082J/03		
16887	C45	Gypit
NTS 082J/04		
16886	C45	Domtar Amos
17159	C45	Laura
NTS 082J/11		
17814	C45	Shag
NTS 082J/12		
17822	C46	Albert River

A.R.	Page	Property Name
NTS 082J/13		
17538	C46	Rok
NTS 082K/01		
16925	C46	Echo
18169	C46	Echo
NTS 082K/03		
16758	C47	Whitewater
17158	C47	Whitewater Highland Surprise)
17225	C46	Alamo (Creek Side)
17748	C47	Alamo
17862	C47	Lynn
18016	C46	Northern Belle
18144	C46	Lynn
NTS 082K/04		
16967	C48	Eureka
17112	C48	Cam
17717	C48	Kusp
17847	C47	Brick 3
17848	C47	Brick 1
NTS 082K/05		
17979	C48	Ping Pong
NTS 082K/06		
18136	C48	Amber
18149	C48	Comstock
NTS 082K/08		
16811	C49	Snow Cat
16878	C49	Duchess
17008	C49	Lucky Boy
NTS 082K/09		
16808	C49	Silver Thread
NTS 082K/11		
17227	C50	Winslow
17446	C50	Silver Basin
17651	C49	Denny
18090	C49	Ophir-Lade
18095	C49	Ottawa
NTS 082K/13		
16724	C51	Pool Creek
16753	C51	Windflower
16791	C50	Ed
16792	C52	Teddy Glacier
16859	C50	Gap
16934	C50	Adrienne
17099	C52	Big R
17436	C51	Revelstoke
17522	C50	AB
17809	C51	Sandi
17911	C51	Sandi
17929	C51	Goldfinch/Independence
17978	C51	Lexington Creek

NTS MAP SHEET 082G, J, K, N; 083C, D

A.R.	Page	Property Name
NTS 082N/04		
16907	C66	Allco
17582	C66	Silver
NTS 082N/11		
18053	C66	Ram
NTS 082N/14		
17303	C66	Mike
NTS 082N/15		
17753	C66	Mark
NTS 083C/03		
17752	C68	Larry
NTS 083D/11		
17320	C68	Cariboo
17321	C68	Expo
17427	C68	Dove

ASSESSMENT REPORT LOCATION MAP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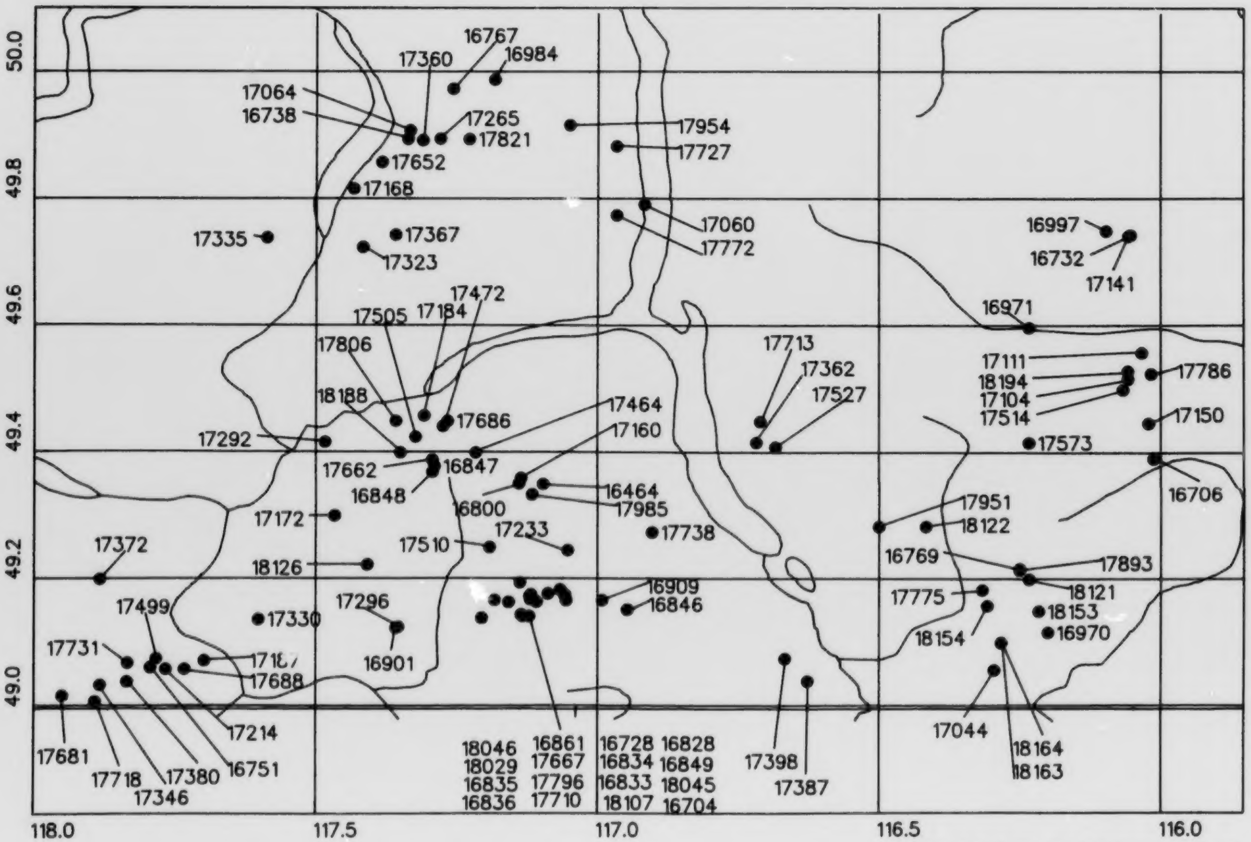
NTS MAP SHEET 082E

NTS MAP SHEET 082E

A.R.	Page	Property Name
NTS 082E/01		
16978	C13	Mollie Gibson
17046	C13	Halifax-Motherlode
17375	C13	Hek
17378	C13	Seattle
NTS 082E/02		
16829	C15	Set
16940	C16	Camper
16976	C15	Phoenix
17090	C13	April
17100	C15	Pride of the West
17162	C16	Rainbow (Midway Mine)
17270	C13	Amro
17308	C14	Emma
17340	C14	Crown II
17345	C16	Wendy
17434	C13	Combination
17479	C15	Nicole
17488	C14	Eholt
17549	C16	Louise
17565	C16	Yankee Girl
17579	C15	Tel
17591	C14	Eagle 85
17617	C15	Sappho
17684	C14	May
17711	C14	E.P.U.
NTS 082E/03		
16775	C17	McKinney
16883	C16	DWS
16975	C17	Goldhill
17109	C17	Ray
17176	C17	Rice
17236	C17	Gordon (Chris)
17611	C17	Elk
17815	C18	Sailor
17924	C18	Tu
18186	C17	Jolly
NTS 082E/04		
16723	C18	Fairview
16779	C18	Fairview
17300	C18	Bell-Juniper
17701	C18	Gil
NTS 082E/05		
16796	C19	Dividend
16807	C20	Puma
16913	C20	Nickel Plate-John
16944	C20	Kero
16945	C19	Kero
17169	C20	Snow Leopard
17293	C19	Vault
17476	C19	Kero
17648	C19	Cliff
17843	C19	Golden Plug

A.R.	Page	Property Name
NTS 082E/06		
16771	C20	Beaverdell
16772	C21	Wallace Mountain
17191	C21	W
17327	C21	Venner
17354	C21	Shut
17497	C21	Queen of Shieba
17921	C20	Lucky Boy
NTS 082E/07		
16475	C22	Volcano
17421	C22	Boston
18178	C21	Barnato
NTS 082E/09		
17273	C22	Platinum Blonde
NTS 082E/10		
16998	C22	Auriferous
17675	C22	Copket
NTS 082E/11		
17030	C22	Black
NTS 082E/12		
16845	C23	Vent
17756	C23	Marble
18171	C23	Munro Lake
NTS 082E/13		
16750	C24	Brenda
16761	C25	Oka
16787	C25	Peach
16788	C24	Oka
16921	C24	Brae
16922	C24	Brae 2
17364	C23	Chris
17501	C23	Kurtis
17576	C24	Spod
17700	C24	Flip
17854	C23	Lamb
17856	C24	Brae
17959	C25	Peach
NTS 082E/15		
17526	C25	Silver Lump
17984	C25	Big P
18009	C25	Azza

ASSESSMENT REPORT LOCATION MAP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NTS MAP SHEET 082F

NTS MAP SHEET 082F

NTS 082F/01

A.R.	Page	Property Name
16769	C27	Sha/Star
16970	C26	Goat
17044	C26	Sha
17775	C27	Sha
17893	C26	Kid Star
18121	C26	Star
18122	C26	Hall
18153	C26	Sky
18154	C27	Sun
18163	C27	Sha
18164	C26	Sha

NTS 082F/02

A.R.	Page	Property Name
16846	C27	Bayonne
16909	C28	Wal
17387	C27	Jon
17398	C27	Laura
17951	C28	Hall

NTS 082F/03

A.R.	Page	Property Name
16704	C29	Nugget
16728	C28	Goldbelt
16828	C30	Salmo Goldbelt
16833	C28	Cayote
16834	C28	Goldbelt
16835	C30	Whitecloud
16836	C29	Reno
16849	C29	Rhomberg
16861	C30	Yellowstone
16901	C31	Gus
17233	C30	Shawn
17296	C31	Swift
17510	C29	Porcupine
17667	C29	Kootenay Belle
17710	C31	Lucky Boy
17796	C28	Aspen
18029	C30	Yellowstone
18045	C29	K-G
18046	C30	T.J.
18107	C29	Mitka
18126	C31	Leona

NTS 082F/04

A.R.	Page	Property Name
16751	C32	Rossland
17187	C31	Gold Dust (Decoy)
17214	C31	Air
17330	C32	Rossland Bear
17346	C32	Ross
17372	C33	Strawberry
17380	C32	Jero
17499	C32	Charleston Group
17681	C32	Santa Rosa
17688	C31	Cam
17718	C33	Vermont
17731	C33	Union Jack-Poor Property

NTS 082F/06

A.R.	Page	Property Name
16464	C33	Pendant
16800	C33	Dumas
16847	C34	Bear
16848	C34	Eclipse
17160	C33	Oldtimer
17172	C35	Rachel
17184	C34	Athabasca
17292	C34	Connor
17464	C33	Golden Age
17472	C35	Shaft
17505	C34	Crow
17662	C35	Honky Tonk
17686	C35	Silver Hawk
17806	C35	Star
17985	C34	Ymir-Belle
18188	C35	Rozan

NTS 082F/07

A.R.	Page	Property Name
17362	C36	Valparaiso
17527	C36	Totem Gold
17713	C36	Hope of Discovery
17738	C36	Don

NTS 082F/08

A.R.	Page	Property Name
16706	C36	Moyie River
17150	C36	Buck
17514	C37	Purcell
17573	C37	Swenson

NTS 082F/09

A.R.	Page	Property Name
16971	C37	St. Mary
16997	C38	Sullivan
17104	C37	Paris
17111	C37	Morgan
17141	C38	Sullivan
17786	C37	Perth
18194	C37	Paris

NTS 082F/11

A.R.	Page	Property Name
17323	C38	Hope
17367	C38	Chapleau Creek

NTS 082F/12

A.R.	Page	Property Name
17335	C38	Day

NTS 082F/14

A.R.	Page	Property Name
16738	C39	L.H.
16767	C40	Silvana
16984	C39	Purcell
17064	C39	Golden Thorn
17168	C40	Rain
17265	C39	Maurier Creek-PBX
17360	C40	Midas Touch
17652	C39	Highland
17821	C39	Comstock-Silver Cup
17954	C38	Cat

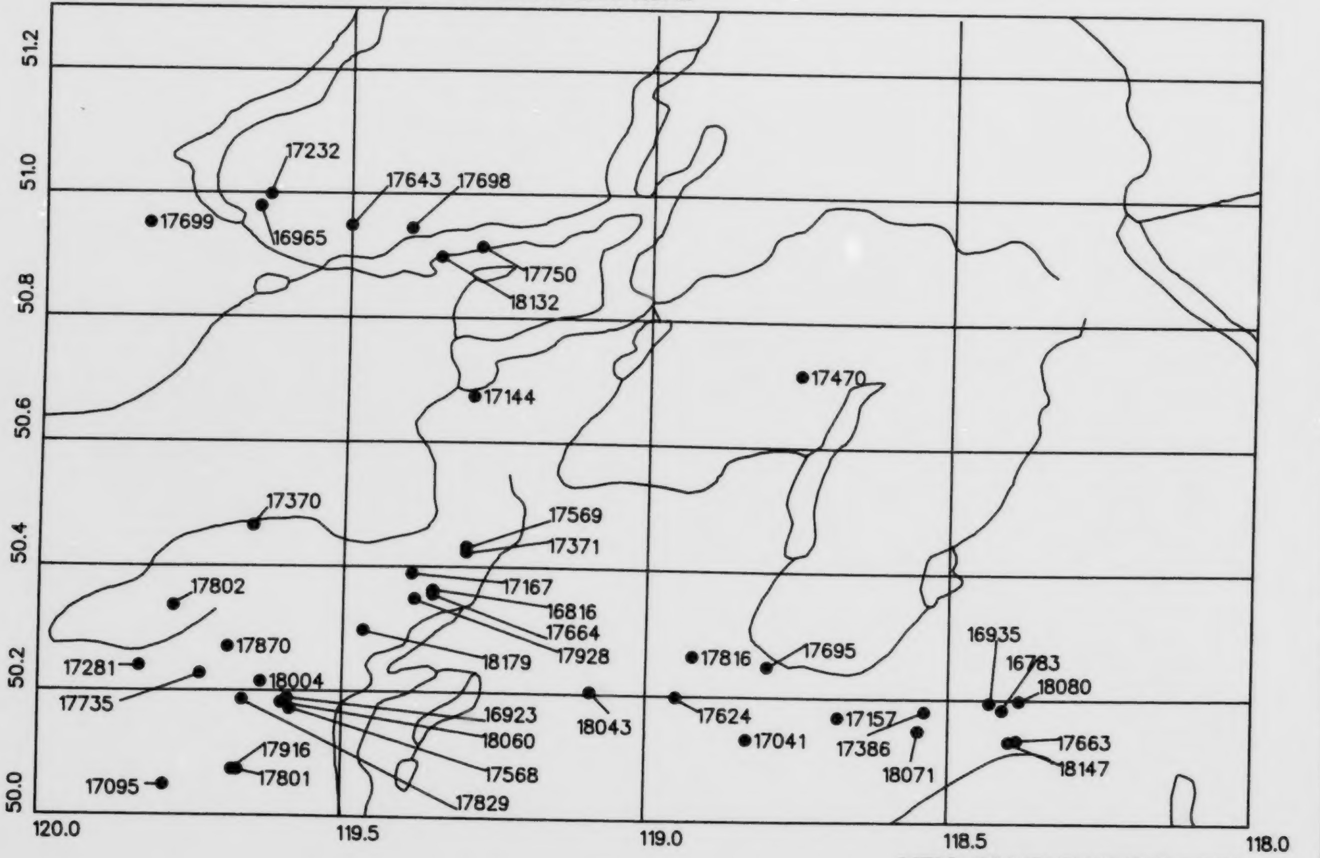
NTS 082F/15

A.R.	Page	Property Name
17060	C40	Verna
17727	C40	True Blue
17772	C40	Golden

NTS 082F/16

A.R.	Page	Property Name
16732	C41	Sullivan

ASSESSMENT REPORT LOCATION MAP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17801
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NTS MAP SHEET 082L

NTS MAP SHEET 082L

NTS 082L/01

A.R.	Page	Property Name
16783	C52	Bel
16935	C53	KP
17663	C52	Dona
18080	C52	Alex
18147	C52	Dona

NTS 082L/02

A.R.	Page	Property Name
17041	C53	Moss
17157	C53	Creighton (Bonneau)
17386	C53	Hilton
17624	C53	Insect
17695	C53	Bearcub
18071	C53	Pita

NTS 082L/03

A.R.	Page	Property Name
18043	C54	Kalamalka

NTS 082L/04

A.R.	Page	Property Name
16923	C54	Miller 1
17095	C55	Flop
17281	C55	Ron
17568	C54	Golden Elephant
17735	C55	Queen Bee
17801	C54	Dome
17829	C55	Young
17916	C54	Esperon
18004	C55	Whit
18060	C54	Miller-Lite

NTS 082L/05

A.R.	Page	Property Name
17370	C55	Eureka
17802	C56	Nugget
17870	C55	Bolo

NTS 082L/06

A.R.	Page	Property Name
16816	C56	Vera
17167	C56	Equesis Creek
17371	C56	Bop
17569	C56	Radex
17664	C57	Vera
17928	C56	Skookum
18179	C56	Goodenough

NTS 082L/07

A.R.	Page	Property Name
17816	C57	Lumby

NTS 082L/10

A.R.	Page	Property Name
17470	C57	OM

NTS 082L/11

A.R.	Page	Property Name
17144	C57	Platinum Giant

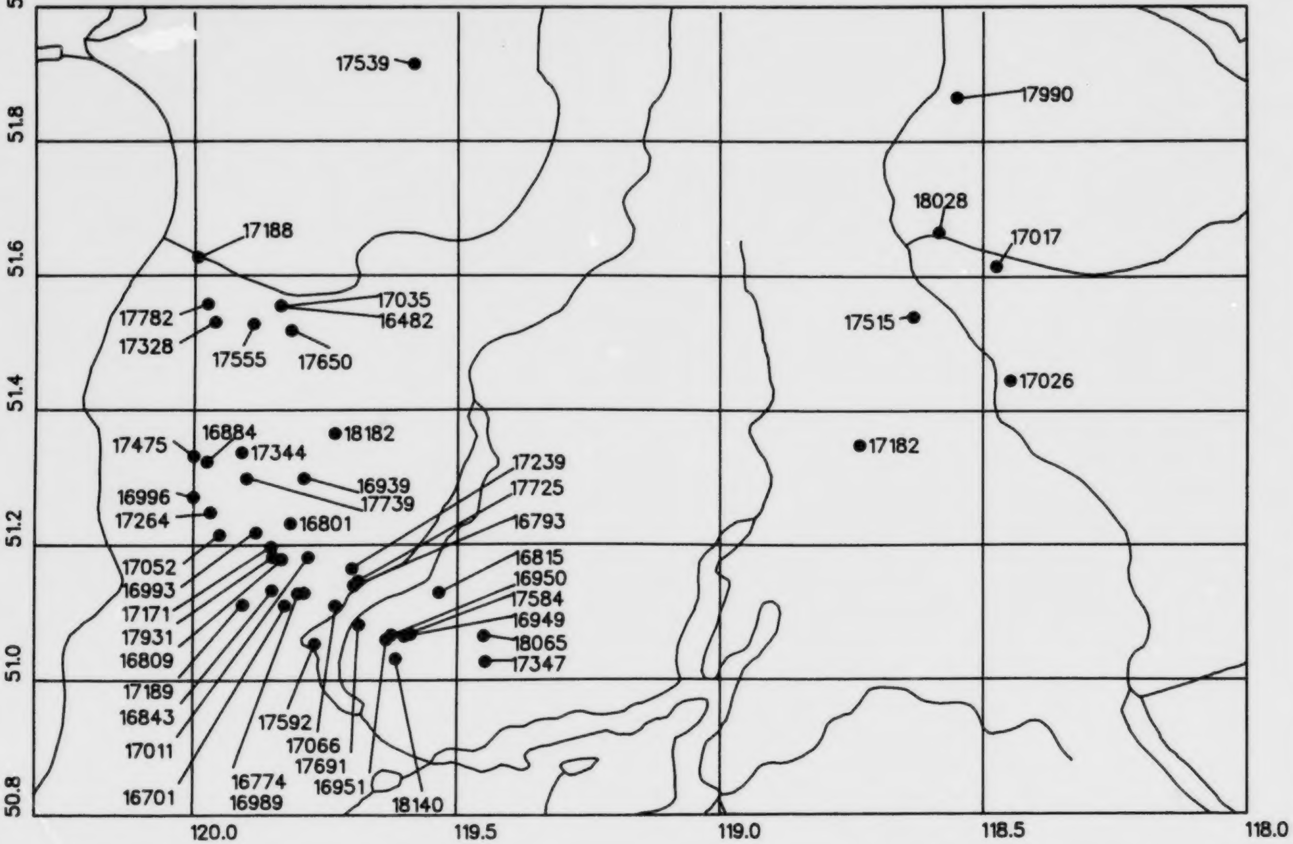
NTS 082L/13

A.R.	Page	Property Name
16965	C57	Ford
17232	C57	Ford/Woof
17643	C58	Scotch
17699	C58	Cahilty

NTS 082L/14

A.R.	Page	Property Name
17698	C58	Cop
17750	C58	Eagle
18132	C58	Perris

ASSESSMENT REPORT LOCATION MAP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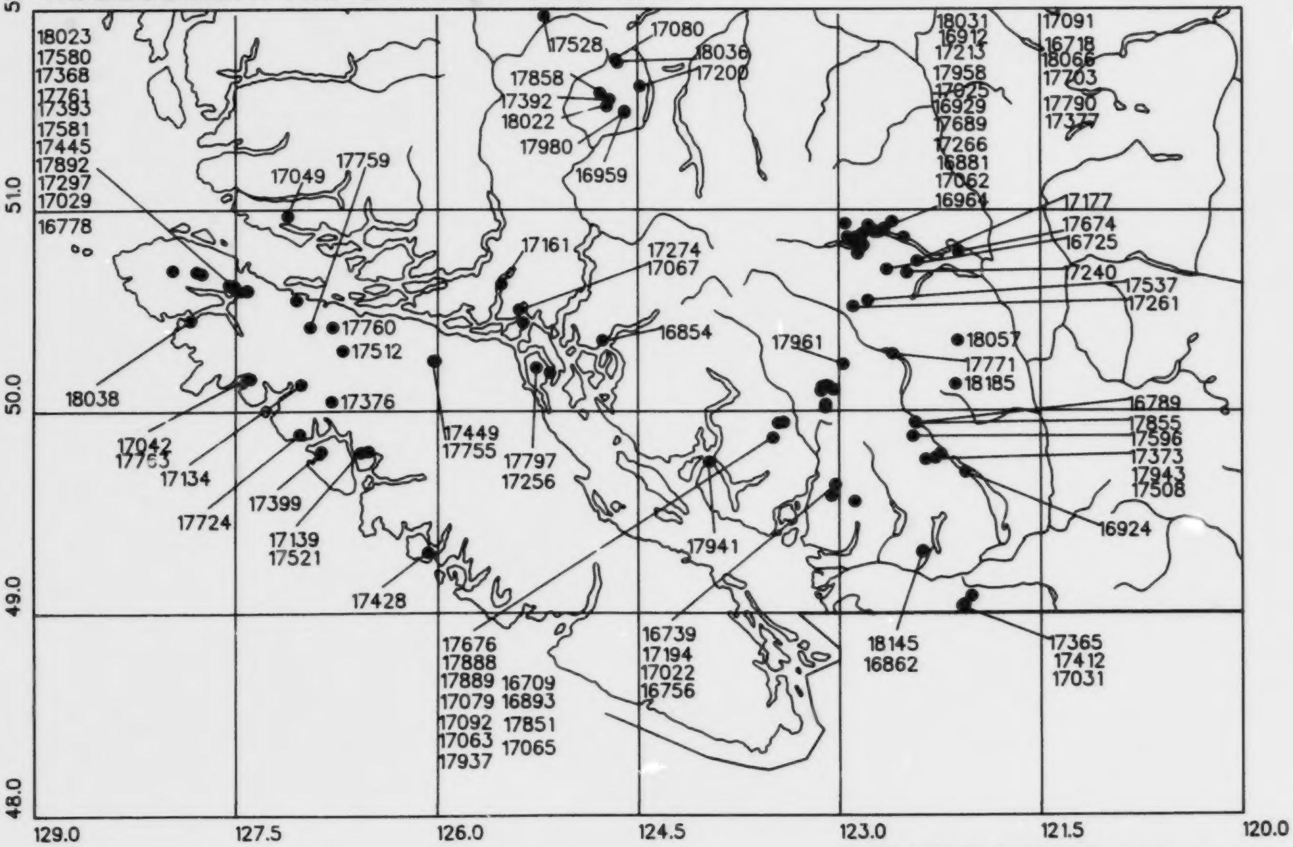
NTS MAP SHEET 082M

NTS MAP SHEET 082M

A.R.	Page	Property Name
NTS 082M/03		
17347	C58	Keta
18065	C58	Golden Eagle
NTS 082M/04		
16701	C61	Kamad
16774	C62	Twin
16793	C60	Amy-Dee
16801	C61	Blom
16809	C61	Gill
16815	C60	JR
16843	C62	OK
16949	C59	Adams
16950	C59	Adams
16951	C59	Alpha
16989	C62	Twin
16993	C62	Wiki
17011	C61	Johnson Lake
17052	C60	Bar
17066	C59	Adams Lake
17171	C61	Gill
17189	C61	Crown
17239	C59	Adams Lake
17264	C60	Bar
17584	C60	Lucky Coon
17592	C62	SBS
17691	C60	HFG
17725	C59	Amy-Dee
17931	C61	Cana
18140	C60	Axl
NTS 082M/05		
16884	C63	Joe
16939	C62	Adon
16996	C63	Bar
17344	C63	Semco
17475	C63	SC 1
17739	C63	White Rock
18182	C62	Zeb

A.R.	Page	Property Name
NTS 082M/07		
17182	C63	Apati
NTS 082M/08		
17026	C64	Downie
NTS 082M/09		
17017	C64	Brewster Creek
NTS 082M/10		
17515	C64	Carbide
18028	C64	Oro Viejo
NTS 082M/12		
16482	C65	Tia
17035	C65	Tia
17188	C65	Water
17328	C64	Foghorn
17555	C64	Birch
17650	C65	Hail Harper Creek
17782	C65	MC
NTS 082M/13		
17539	C65	CK
NTS 082M/15		
17990	C66	Rift

ASSESSMENT REPORT LOCATION MAP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NTS MAP SHEET 092/102

NTS MAP SHEET 092E, G, J, K, L, N

A.R.	Page	Property Name
NTS 092E/08		
17428	C77	Contact
NTS 092E/14		
17724	C77	Monarch
NTS 092E/15		
17139	C77	Mohawk
17399	C77	Rosa
17521	C77	Head Bay
NTS 092G/01		
17031	C94	Nami
17365	C94	Summit
17412	C94	Marg-Sum
NTS 092G/08		
16862	C95	Gap
18145	C95	Golden Star
NTS 092G/09		
16924	C95	Coon
17943	C95	Frontier-Gem
NTS 092G/10		
17022	C95	Gerrard
NTS 092G/11		
16739	C95	Maggie
16756	C95	Britannia
17194	C96	Maggie
NTS 092G/12		
17941	C96	Egmont
NTS 092G/14		
17676	C96	Phantom
17888	C96	Bimbo
17889	C96	Hawk
17937	C96	Elephant
NTS 092G/16		
16789	C97	Easy
17373	C97	Quet
17508	C97	Fire Creek
17596	C97	TY
17855	C97	Easy
NTS 092J/01		
18185	C119	Cataract
NTS 092J/02		
17961	C119	Sue

A.R.	Page	Property Name
NTS 092J/03		
16709	C120	Northair
16893	C119	Callaghan
17063	C119	C3A
17065	C119	Helpful
17079	C120	Marble
17092	C120	Northair
17851	C119	Discovery
NTS 092J/07		
17771	C120	Lill
NTS 092J/08		
18057	C120	Horn
NTS 092J/09		
17177	C121	White Cap
17240	C120	Axe
NTS 092J/10		
16725	C121	Standard Creek
17261	C121	Tenquille
17537	C121	Aurum
NTS 092J/15		
16718	C124	Wayside
16881	C122	Congress Extension
16912	C123	GG
16929	C123	Guns Gold
16964	C121	Avino-Olympic
17025	C123	Swan
17062	C123	Goldbelt
17091	C123	Wayside
17213	C122	Bralorne Ext.
17266	C122	BRX
17377	C122	Hart
17689	C123	Oro
17703	C122	Dam
17790	C122	Minto
17958	C122	Summit
18031	C123	Eldorado Creek
18066	C121	Bill Miner's Gold
NTS 092J/16		
17674	C124	Camoo
NTS 092K/03		
17256	C124	Santana
17797	C124	Nat
NTS 092K/06		
17274	C124	White Pine
NTS 092K/07		
16854	C125	Flo

NTS MAP SHEET 092E, G, J, K, L, N

A.R.	Page	Property Name
NTS 092K/11		
17067	C125	Phillips Arm
NTS 092K/12		
17161	C125	Poison Creek
NTS 092L/01		
17449	C125	Dave
17755	C125	Dave
NTS 092L/02		
17376	C125	Gold Rock
NTS 092L/03		
17042	C126	Cap
17134	C126	Scrutor Gold
17763	C126	Sin
NTS 092L/05		
18038	C126	Kost
NTS 092L/07		
17512	C126	Bonanza River
17759	C126	Tsulton
17760	C126	Bonanza
NTS 092L/11		
17029	C127	Cliff-Pick
17368	C127	East 88
17580	C127	Apple
17761	C127	Eric
17892	C127	Island Copper

A.R.	Page	Property Name
NTS 092L/12		
16778	C128	Island Copper
17297	C128	Central 89
17393	C128	HPH
17445	C128	HPH
17581	C127	Apple 88
18023	C128	Red Dog
NTS 092L/14		
17049	C128	Bonanza
NTS 092N/07		
16959	C129	Argo-Langara
17980	C129	Argo-Langara
NTS 092N/09		
17200	C129	Gossan
NTS 092N/10		
17080	C130	Newmac
17392	C129	Loot
17858	C130	J.J.
18022	C129	AT
18036	C129	Newmac
NTS 092N/14		
17528	C130	Pine-Woods

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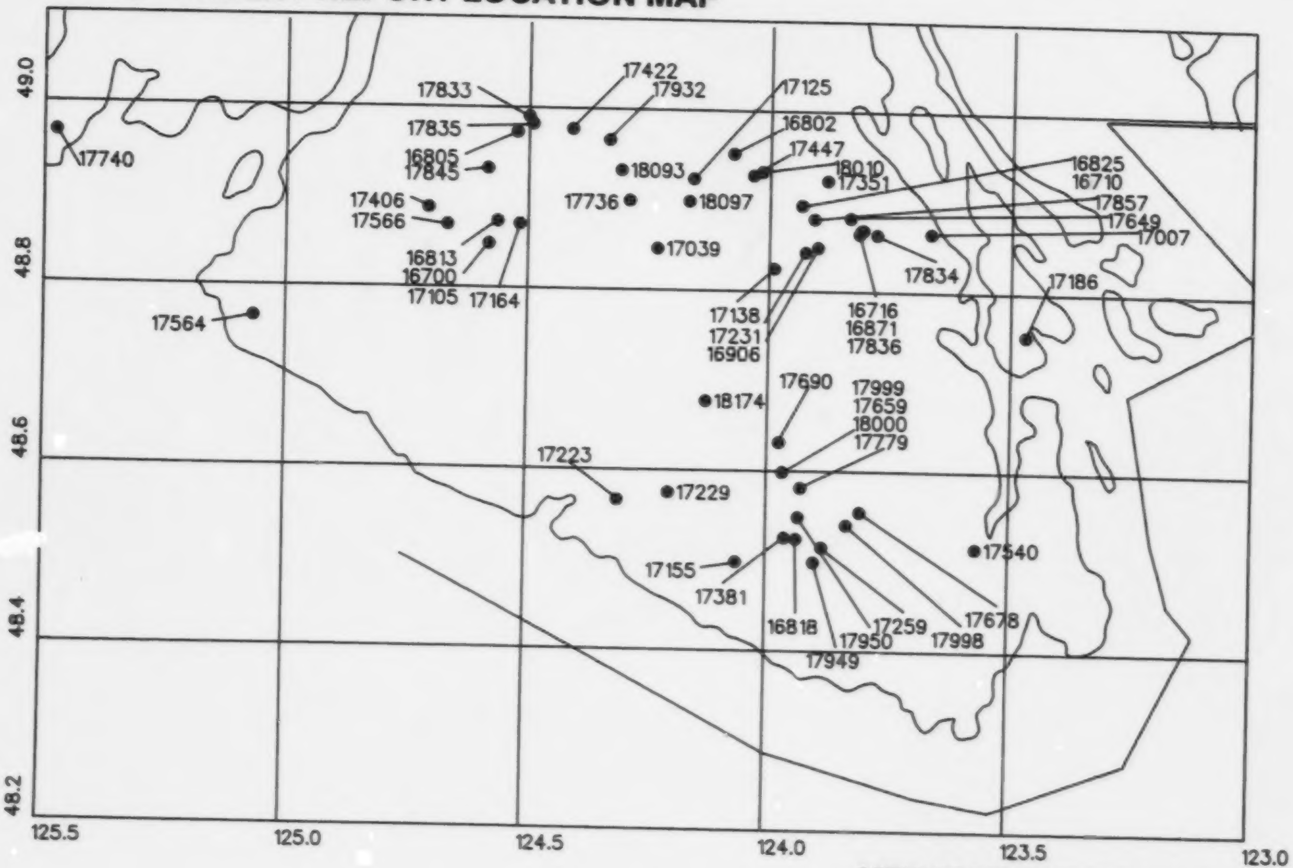

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NTS MAP SHEET 092B,C

NTS MAP SHEET 92B, C

NTS 092B/05

A.R.	Page	Property Name
17540	C69	Tunnel Hill
17949	C69	Jordan Gold

NTS 092B/11

A.R.	Page	Property Name
17186	C69	Saltspring Island

NTS 092B/12

A.R.	Page	Property Name
16818	C69	Jordan River
17259	C70	Valentine Mountain
17381	C70	Valentine-Survey Mountain
17659	C69	Bear
17678	C70	Survey
17690	C71	Wolf
17779	C70	Lusty
17950	C70	VG
17998	C69	Blue Jay
17999	C70	Tiffany
18000	C69	Lenny

NTS 092B/13

A.R.	Page	Property Name
16710	C71	Chemainus
16716	C73	Twin
16825	C71	Chemainus
16871	C71	Canamera
16906	C72	Poly Group
17007	C71	West
17138	C72	Josh
17231	C72	Gold Tusk
17351	C72	Hall
17649	C71	Chemainus
17834	C72	Mt. Sicker
17836	C71	Canamera
17857	C72	Lara

NTS 092C/08

A.R.	Page	Property Name
17155	C73	Rena

NTS 092C/09

A.R.	Page	Property Name
17223	C73	Carol
17229	C73	Gad
18174	C73	Frost Lake

NTS 092C/13

A.R.	Page	Property Name
17740	C73	Ozzard

NTS 092C/14

A.R.	Page	Property Name
17564	C74	Dar

NTS 092C/15

A.R.	Page	Property Name
16700	C74	Jasper
16805	C74	Heather
16813	C75	Wabana
17105	C74	Jasper
17164	C74	Archer (Good Gold)
17406	C74	Ni
17566	C74	Lloyd
17845	C75	St. Anthony

NTS 092C/16

A.R.	Page	Property Name
16802	C76	Sognidoro
17039	C75	Blue Grouse
17125	C75	Harbey
17422	C76	Taurus
17447	C76	Schist
17736	C76	Striker
17833	C76	Heather
17835	C76	Heather
17932	C77	Taurus
18010	C75	Haslam
18093	C76	Marathon
18097	C75	Osirus A

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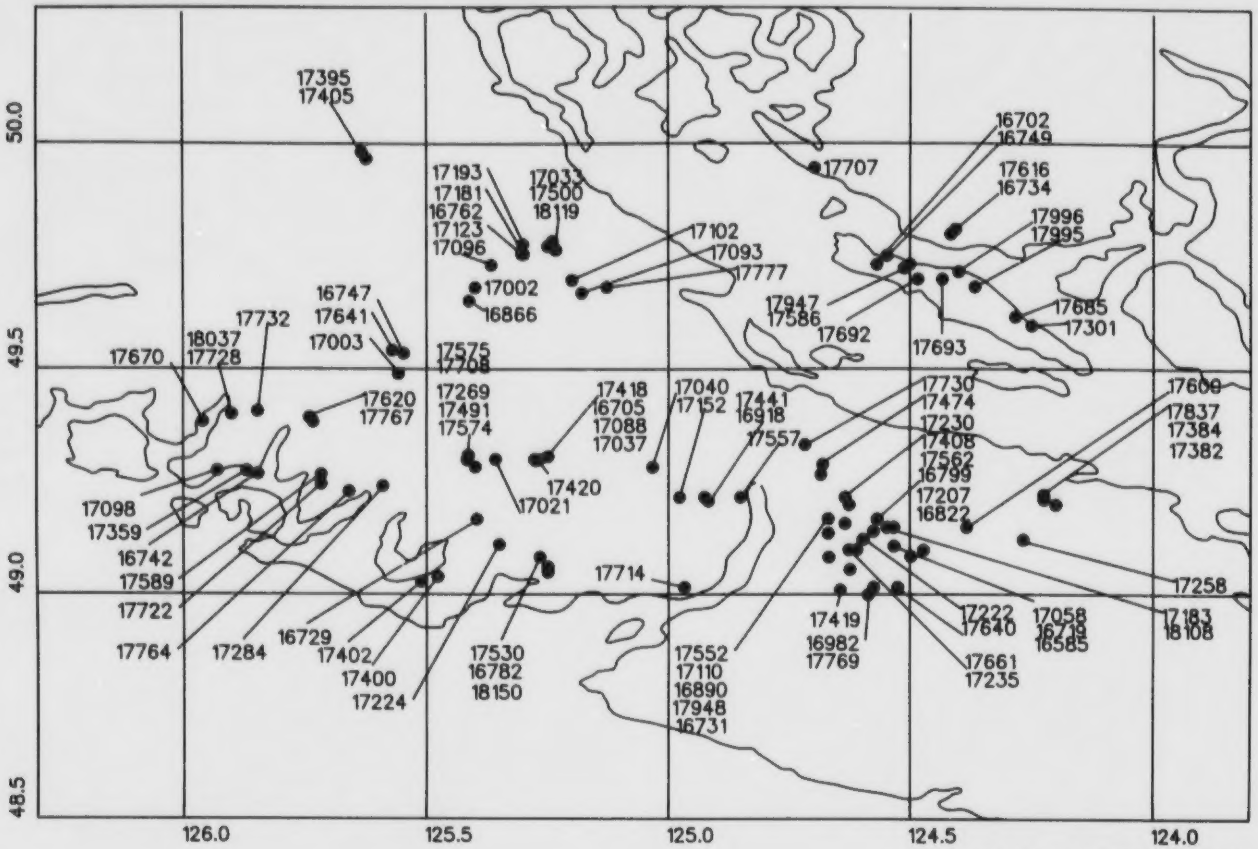

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NTS MAP SHEET 092F

NTS MAP SHEET 092F

NTS 092F/01

A.R.	Page	Property Name
16585	C78	Frank
16719	C78	Villalta
17258	C79	Vulcan
17382	C78	Bon
17384	C78	Songbird
17600	C78	Sicker-Rush
17837	C78	Songbird

NTS 092F/02

A.R.	Page	Property Name
16731	C79	Fitzwater
16799	C79	Emma
16822	C80	McKinlay
16890	C80	Lizard
16918	C83	Skarn
16982	C80	Logan
17058	C81	Snapper
17110	C81	Singapore
17152	C82	Buck
17183	C81	Spring
17207	C82	Su (Emma)
17222	C80	Havilah
17235	C79	Black Panther
17406	C79	Arrowsmith
17419	C81	Rodeo
17441	C83	Otter
17552	C80	Linda
17557	C83	Stamp
17562	C79	DDAM
17640	C80	Hoop
17661	C82	Thistle
17714	C82	Gold Nugget
17769	C82	Columbia
17948	C82	Toby
18108	C81	Spring

NTS 092F/03

A.R.	Page	Property Name
16729	C84	Kennedy River
16782	C83	KM
17224	C83	Toq (Oyster)
17400	C84	Dom
17402	C84	Pym
17491	C84	Viva II
17530	C84	Handsome
18150	C83	Quarry

NTS 092F/04

A.R.	Page	Property Name
17284	C84	Deer Bay
17722	C85	Freegold
17764	C85	Yankee

NTS 092F/05

A.R.	Page	Property Name
16742	C86	Cypress
17003	C85	Buttle Lake
17098	C86	Good Friday
17359	C86	Cypress
17589	C85	Maple Leaf
17620	C85	Prosper
17670	C86	Bedingfield
17728	C86	Lazy
17732	C86	Cotter
17767	C85	Prosper
18037	C87	Lazy

NTS 092F/06

A.R.	Page	Property Name
16705	C88	Tay
17021	C87	Robin
17037	C88	Tay Gold
17040	C87	Ideal
17088	C88	Tay
17269	C88	Snow
17418	C87	Men
17420	C87	Morning
17574	C88	Snow
17575	C88	Snow
17708	C89	White

NTS 092F/07

A.R.	Page	Property Name
17230	C89	Stokes
17474	C89	Horne
17730	C89	Cave

NTS 092F/09

A.R.	Page	Property Name
17301	C89	Frisky
17685	C89	Angel
17692	C89	Bolt
17693	C90	Grad
17947	C90	Pocahontas Bay
17995	C90	Connoisseur
17996	C90	Merridian

NTS 092F/10

A.R.	Page	Property Name
16702	C90	Texada
17586	C90	Mel

NTS 092F/11

A.R.	Page	Property Name
16866	C91	Faith Lake
17002	C91	Gem Lake
17093	C90	B.W.
17096	C91	Joe Anne
17102	C91	Bevan
17500	C91	Dove
17777	C91	Bevan

NTS 092F/12

A.R.	Page	Property Name
16747	C92	Buttle Lake
17641	C92	Buttle Lake

NTS 092F/13

A.R.	Page	Property Name
17395	C92	Bacon
17405	C92	Julia

NTS 092F/14

A.R.	Page	Property Name
16762	C93	Mt. Washington
17033	C92	Mt. Washington
17123	C93	Mt. Washington
17181	C93	Mt. Washington
17193	C93	Mt. Washington
18119	C93	Murex

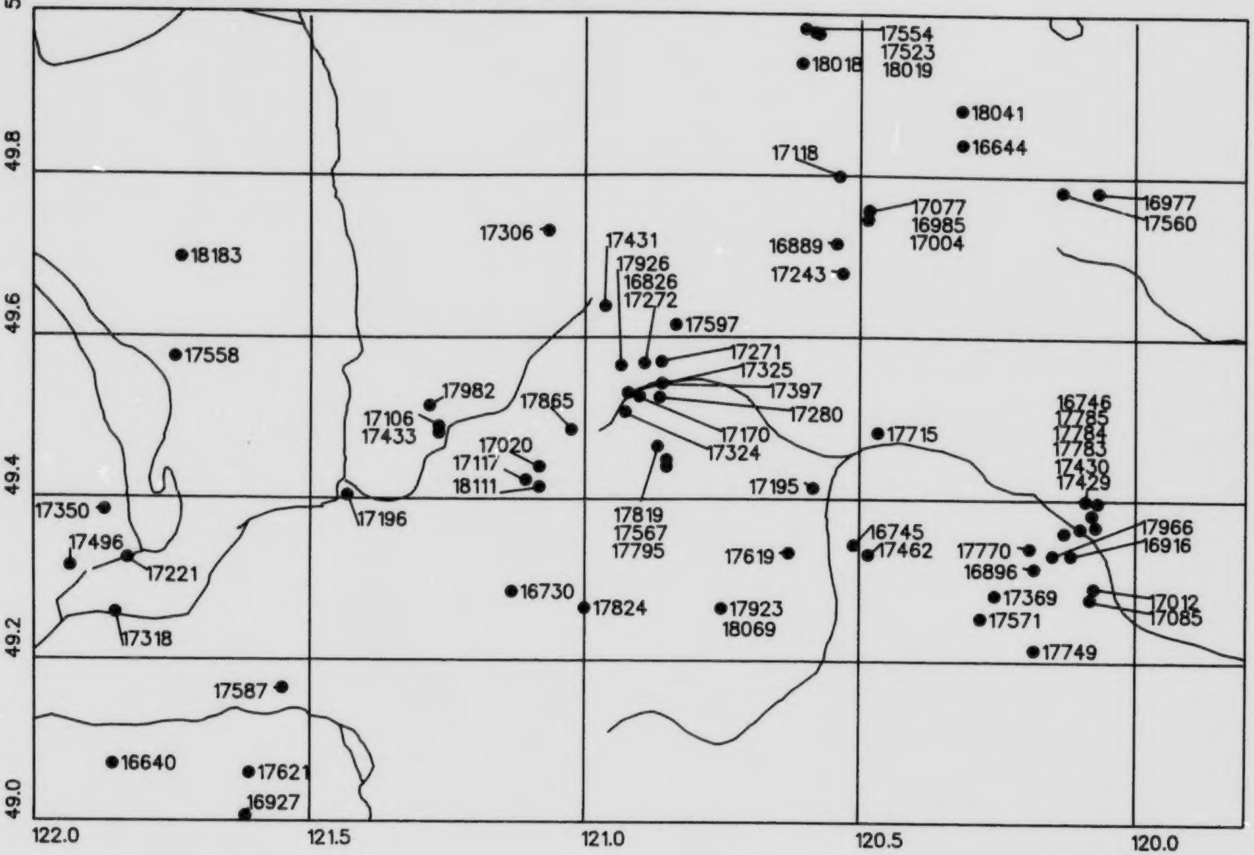
NTS 092F/15

A.R.	Page	Property Name
16749	C94	Texada Island
17707	C93	Lund

NTS 092F/16

A.R.	Page	Property Name
16734	C94	Lang Bay
17616	C94	Kelly

ASSESSMENT REPORT LOCATION MAP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NTS MAP SHEET 092H

NTS MAP SHEET 092H

NTS 092H/01

A.R.	Page	Property Name
17571	C97	Skarn
17749	C97	Paul Creek

NTS 092H/04

A.R.	Page	Property Name
16640	C98	Lilbrat
16927	C98	Roy
17587	C98	Rico
17621	C98	Pierce Mountain

NTS 092H/05

A.R.	Page	Property Name
17221	C99	Jogo
17318	C99	Valley View
17350	C98	Brett Creek
17496	C98	Agassiz-Weaver

NTS 092H/06

A.R.	Page	Property Name
16730	C99	Master Ace
17020	C100	Venus Silver
17106	C100	Sunray
17117	C99	Argentum
17196	C100	Margie
17433	C100	Coquihalla North
17824	C99	Punch
17865	C100	Val
18111	C99	Southern 8

NTS 092H/07

A.R.	Page	Property Name
16745	C101	Similkameen
17195	C101	Stik (Bromley)
17324	C102	White Gold-Red Gold
17462	C101	Similkameen
17567	C101	DMW
17619	C100	Goldrop
17795	C102	Tulameen
17819	C102	Lode
17923	C101	Whipsaw
18069	C101	Whipsaw

NTS 092H/08

A.R.	Page	Property Name
16746	C102	Banbury
16896	C104	WP
16916	C103	Mission
17012	C103	Similkameen
17085	C103	Similkameen
17369	C103	FM
17429	C104	Yak-Xavier
17430	C104	Zandu
17715	C104	TNT
17770	C103	Patsy
17783	C102	Billy Goat
17784	C102	Crackerjack
17785	C103	Ruby
17966	C103	Gold Mine

NTS 092H/09

A.R.	Page	Property Name
17004	C104	Man

NTS 092H/10

A.R.	Page	Property Name
16826	C106	Rambler
16889	C105	Sadim
17118	C105	Thor
17170	C105	Britton Creek
17243	C104	Hit-Miss
17271	C105	LA
17272	C106	Rambler
17280	C105	H & H
17325	C105	Blue Gold
17397	C106	Rambler
17431	C106	Mount Henning
17597	C106	Sulphide
17926	C106	Rambler

NTS 092H/11

A.R.	Page	Property Name
17306	C107	Juliet
17982	C107	Aurum

NTS 092H/12

A.R.	Page	Property Name
17558	C107	North Fork
18183	C107	CM

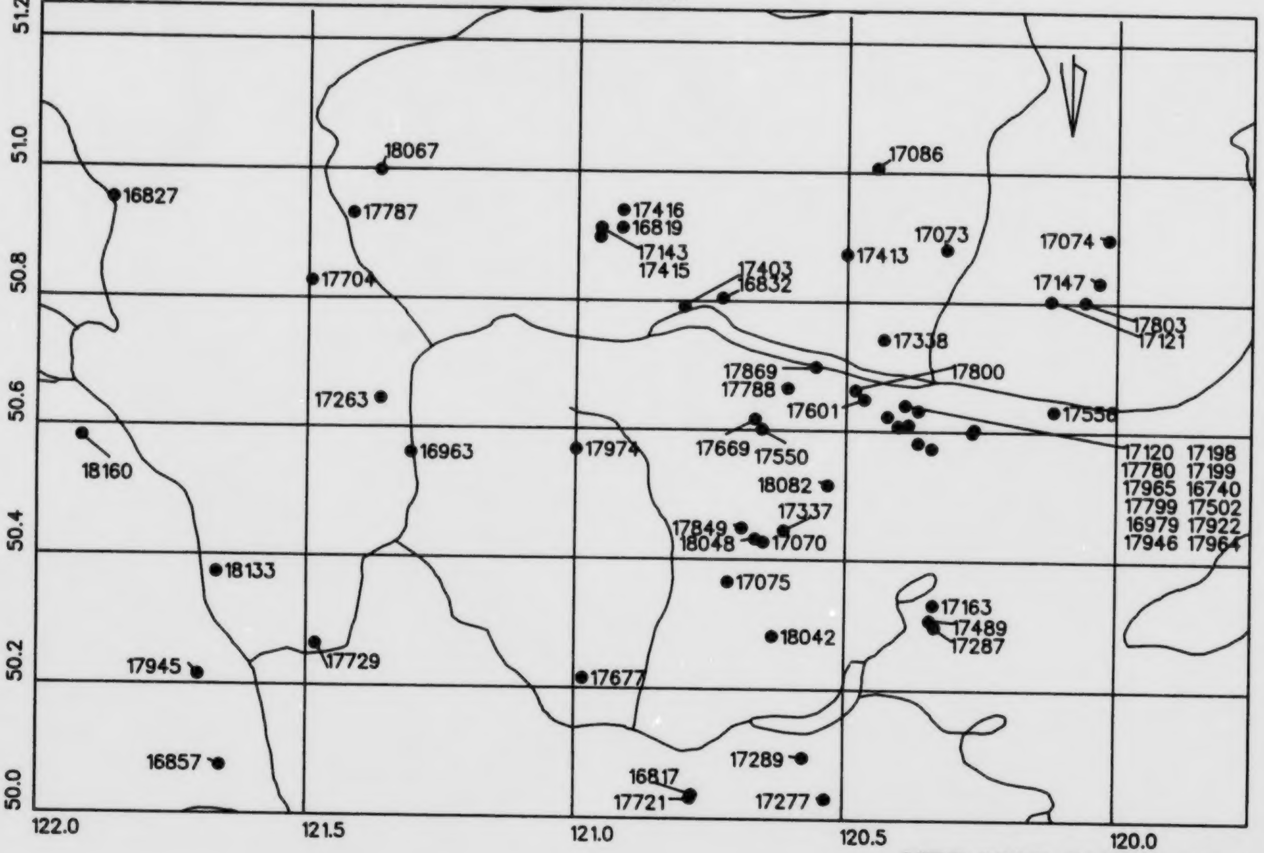
NTS 092H/15

A.R.	Page	Property Name
17523	C108	Snowflake
17554	C107	Dor
18018	C107	Dawn
18019	C108	Snowflake

NTS 092H/16

A.R.	Page	Property Name
16644	C108	Elk
16977	C108	Travis
16985	C109	Prime
17077	C108	Prime
17560	C108	Spring
18041	C109	Wart

ASSESSMENT REPORT LOCATION MAP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NTS MAP SHEET 092I

NTS MAP SHEET 092I

NTS 092I/02

A.R.	Page	Property Name
16817	C109	Iron Mountain
17277	C109	Bonus
17289	C109	Snow Devil
17677	C109	Key
17721	C110	Stirling

NTS 092I/04

A.R.	Page	Property Name
16857	C110	Gold Ridge
17945	C110	Mt. Roach

NTS 092I/05

A.R.	Page	Property Name
18133	C110	Laurie

NTS 092I/06

A.R.	Page	Property Name
17729	C110	Pitquah

NTS 092I/07

A.R.	Page	Property Name
17070	C111	Des
17075	C111	Phelp 300
17337	C111	Wrt
17849	C111	Oly
18042	C110	Clapper
18048	C111	WRT

NTS 092I/08

A.R.	Page	Property Name
17163	C112	Loranger
17287	C112	Peterhope
17489	C111	Cig

NTS 092I/09

A.R.	Page	Property Name
16740	C112	Ajax
16979	C113	Beer 1
17120	C114	Makaoo
17198	C112	Ajax
17199	C112	Ajax
17338	C114	Mara
17502	C114	Reg-Byr
17556	C112	Barn
17601	C114	Rainbow
17780	C113	Galaxy
17799	C113	Hump
17800	C113	Cid
17922	C113	CYA
17946	C114	Makaoo
17964	C114	Wheal Tamar
17965	C113	Ajax-Neptune

NTS 092I/10

A.R.	Page	Property Name
17550	C115	GS
17669	C115	Rag
17788	C115	Beaton
17869	C115	Cedars
17974	C115	Getty
18082	C115	M&R

NTS 092I/11

A.R.	Page	Property Name
16963	C116	Tom
17263	C115	Red Hill

NTS 092I/12

A.R.	Page	Property Name
18160	C116	Spray

NTS 092I/13

A.R.	Page	Property Name
16827	C116	Pavilion
17704	C116	Trac

NTS 092I/14

A.R.	Page	Property Name
17787	C116	Census
18067	C116	Plat

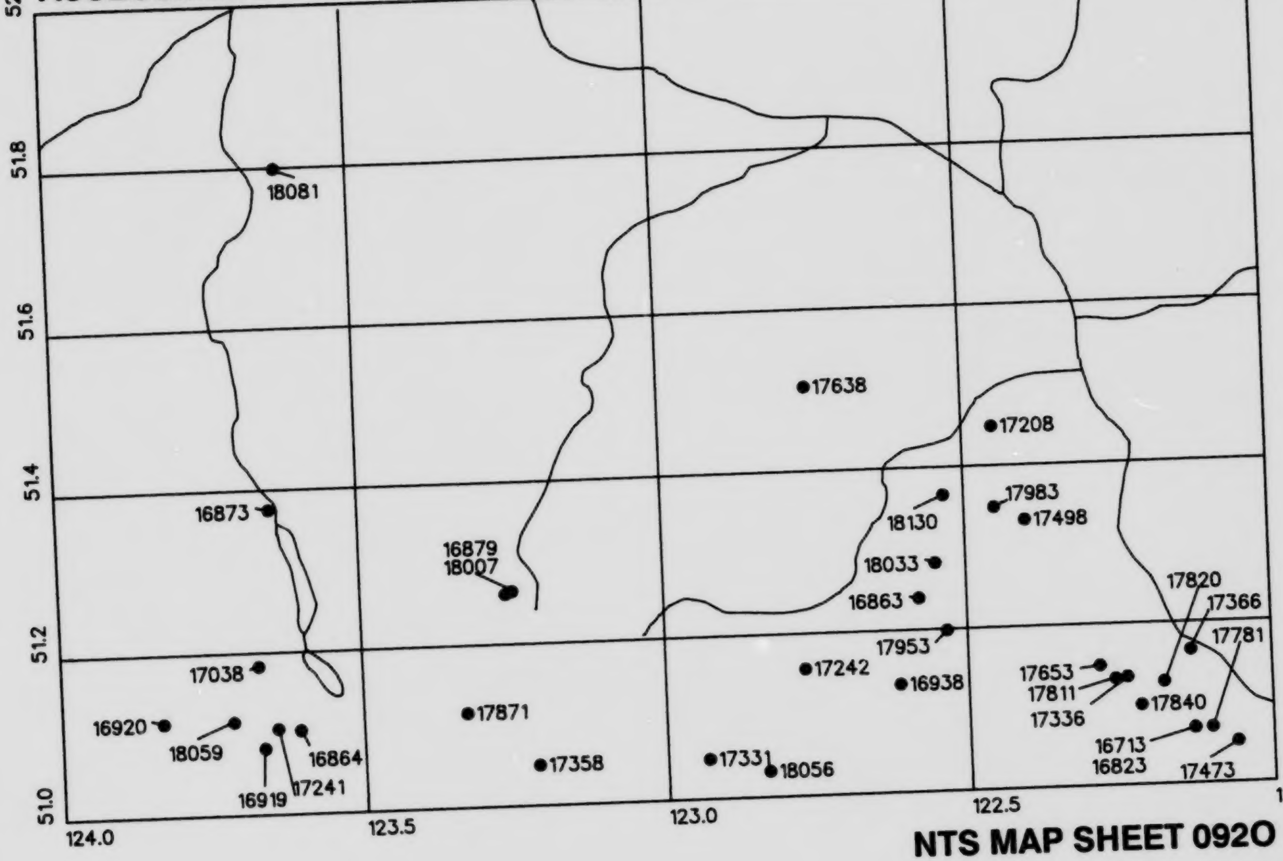
NTS 092I/15

A.R.	Page	Property Name
16819	C117	Criss
16832	C117	James
17143	C117	Deadman
17403	C117	Kam-Jeff
17413	C116	Darcy
17415	C117	LC
17416	C117	LC

NTS 092I/16

A.R.	Page	Property Name
17073	C118	WK
17074	C118	Morgan
17086	C118	Bonaparte
17121	C118	Lolo
17147	C118	Hawk
17803	C117	Hawk

ASSESSMENT REPORT LOCATION MAP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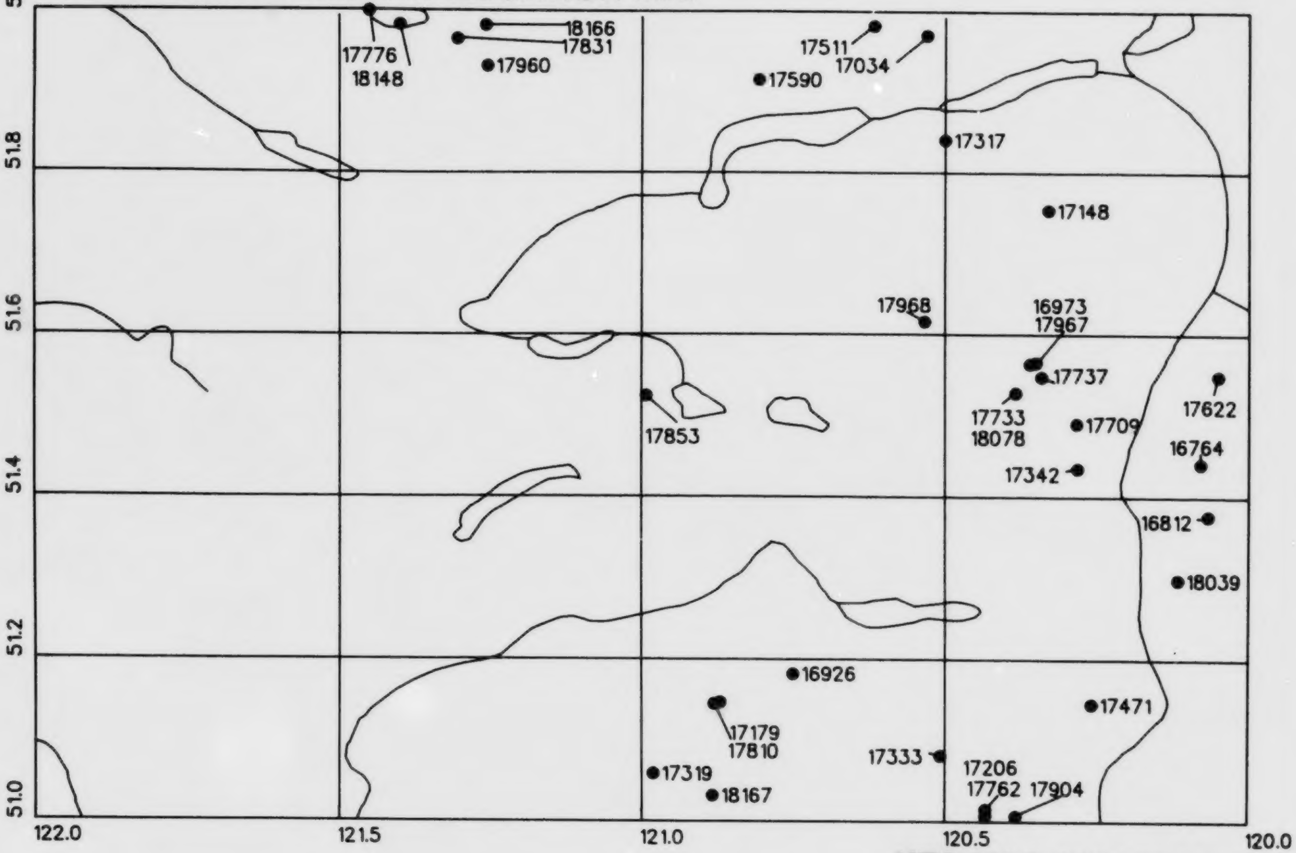
NTS MAP SHEET 092O

NTS MAP SHEET 092O

A.R.	Page	Property Name
NTS 092O/01		
16713	C130	Mad
16823	C131	Mad
17336	C131	Watson
17366	C130	Edge
17473	C131	Second
17653	C132	Roderick Creek
17781	C131	Mad
17811	C132	Brent
17820	C130	Graduation
17840	C131	Stirrup Creek
17953	C131	Rouge
NTS 092O/02		
16863	C132	Scarlet
16938	C132	Poison Mountain
17242	C133	Ruth
17331	C132	Eva
18056	C132	Eva
NTS 092O/03		
17358	C133	Warner
17871	C133	Taseko Joint Venture
NTS 092O/04		
16864	C133	Pellaire
16919	C134	YHWH
16920	C134	Rufous
17038	C133	Tchaikazan
17241	C133	Serac
18059	C134	Zan

A.R.	Page	Property Name
NTS 092O/05		
16873	C134	Vic
NTS 092O/06		
16879	C134	Dil
18007	C134	Dil
NTS 092O/07		
18033	C135	Bobcat
18130	C135	Churn Creek
NTS 092O/08		
17208	C135	Geowest
17498	C135	Lynx I
17983	C135	MJ
18173	C135	Geowest
NTS 092O/10		
17638	C135	Fame
NTS 092O/13		
18081	C136	Newton

ASSESSMENT REPORT LOCATION MAP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NTS MAP SHEET 092P

NTS MAP SHEET 092P

A.R.	Page	Property Name
NTS 092P/01		
17206	C136	Bonaparte
17471	C136	Skull
17762	C136	Bonaparte
17904	C136	Bonaparte
NTS 092P/02		
16926	C137	Tip
17179	C137	Vidette Lake
17319	C137	Westmo-Eastmo
17333	C136	Flow
17810	C137	Epi
18167	C137	Mow
NTS 092P/08		
16764	C138	Windpass
16812	C138	Chu Chua
17342	C138	Golden Loon
17709	C138	Cedar
18039	C137	CM
NTS 092P/09		
16973	C139	HC
17622	C138	Axel
17733	C139	Haida Gold
17737	C139	Ta Hoola
17967	C139	HC
17968	C138	Bogg
18078	C139	Haida Gold
NTS 092P/10		
17853	C139	OID
NTS 092P/14		
17776	C140	Diane
17831	C140	Ann
17960	C140	Tim
18148	C140	Dora
18166	C139	Dora
NTS 092P/15		
17034	C140	IQ
17317	C140	Lost Dutchman Mine
17511	C140	J.R.
17590	C140	Senicar
NTS 092P/16		
17148	C141	Caro

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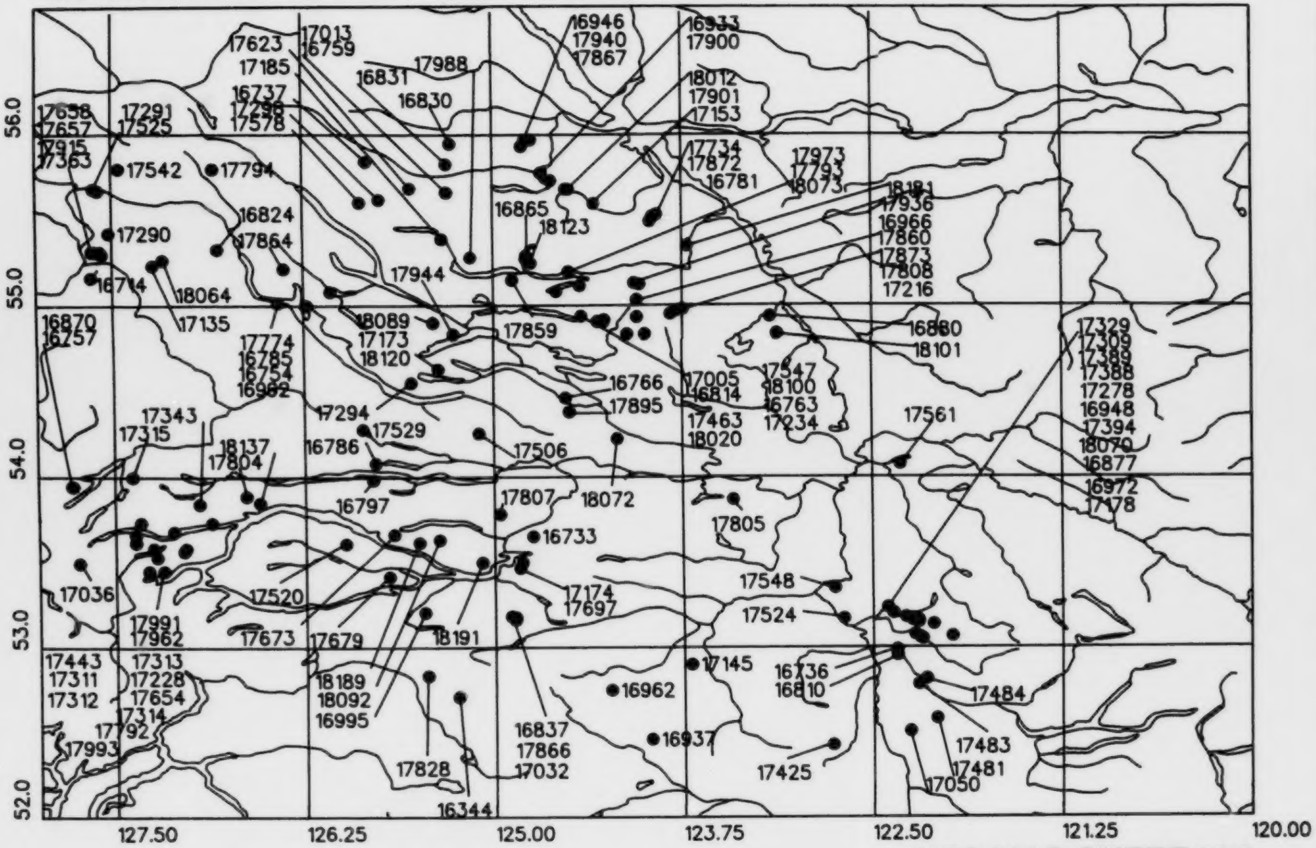
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NTS MAP SHEET 093

NTS MAP SHEET 093B, C, E, F, G, J, K, M, N, O,

NTS 093B/05

A.R.	Page	Property Name
16937	C150	Redstone

NTS 093B/07

A.R.	Page	Property Name
17425	C151	Narc

NTS 093B/09

A.R.	Page	Property Name
17050	C151	Gibraltar
17481	C151	Ben

NTS 093B/13

A.R.	Page	Property Name
17145	C151	Esker

NTS 093B/16

A.R.	Page	Property Name
16736	C152	Quesnel Canyon Placer
16810	C151	Dragon
17483	C151	North Circle
17484	C151	Gravelle

NTS 093C/11

A.R.	Page	Property Name
16344	C152	Tamp

NTS 093C/14

A.R.	Page	Property Name
17828	C152	Cathy J

NTS 093C/16

A.R.	Page	Property Name
16962	C152	Oboy

NTS 093E/05

A.R.	Page	Property Name
17036	C152	Kemano

NTS 093E/06

A.R.	Page	Property Name
17962	C153	Cole
17991	C152	Core

NTS 093E/09

A.R.	Page	Property Name
17520	C153	Uduk

NTS 093E/10

A.R.	Page	Property Name
17443	C153	Tahtsa Reach

NTS 093E/11

A.R.	Page	Property Name
17228	C153	Coles Creek
17311	C154	Kate
17312	C153	Berr
17313	C154	Troy
17314	C154	Wing
17654	C153	Troitsa Peak
17792	C154	Troitsa Peak
17993	C154	Sky

NTS 093E/13

A.R.	Page	Property Name
16757	C154	New Moon
16870	C154	New Moon

NTS 093E/14

A.R.	Page	Property Name
17315	C155	Tab

NTS 093E/15

A.R.	Page	Property Name
17343	C155	Tets
17804	C155	Shelford Hills
18137	C155	Dambo

NTS 093F/02

A.R.	Page	Property Name
16837	C155	Becky Jo
17032	C155	Blackwater-Davidson
17866	C156	Dave

NTS 093F/03

A.R.	Page	Property Name
16995	C156	Wolf

NTS 093F/05

A.R.	Page	Property Name
17679	C156	Exo

NTS 093F/07

A.R.	Page	Property Name
17174	C156	Pig
17697	C156	Nechako Range

NTS 093F/10

A.R.	Page	Property Name
16733	C156	Trout

NTS 093F/11

A.R.	Page	Property Name
18092	C157	Barb-Gusty
18191	C157	White

NTS 093F/12

A.R.	Page	Property Name
17673	C157	Tena
18189	C157	Rhub-Barb

NTS 093F/13

A.R.	Page	Property Name
16797	C157	Boss

NTS 093F/15

A.R.	Page	Property Name
17807	C158	Holy Cross

NTS 093G/01

A.R.	Page	Property Name
16877	C158	Henric
16948	C158	Henric
16972	C159	Umi
17178	C158	Mary
17278	C158	Cottonwood
17309	C159	Ahbau
17329	C159	Sue
17388	C158	Boo
17389	C159	Boo
17394	C158	Shalom
18070	C159	Umi

NTS 093G/02

A.R.	Page	Property Name
17524	C159	Fraser River Placer

NTS MAP SHEET 093B, C, E, F, G, J, K, M, N, O

NTS 093B/05

A.R.	Page	Property Name
16937	C150	Redstone

NTS 093B/07

A.R.	Page	Property Name
17425	C151	Narc

NTS 093B/09

A.R.	Page	Property Name
17050	C151	Gibraltar
17481	C151	Ben

NTS 093B/13

A.R.	Page	Property Name
17145	C151	Esker

NTS 093B/16

A.R.	Page	Property Name
16736	C152	Quesnel Canyon Placer
16810	C151	Dragon
17483	C151	North Circle
17484	C151	Gravelle

NTS 093C/11

A.R.	Page	Property Name
16344	C152	Tamp

NTS 093C/14

A.R.	Page	Property Name
17828	C152	Cathy J

NTS 093C/16

A.R.	Page	Property Name
16962	C152	Oboy

NTS 093E/05

A.R.	Page	Property Name
17036	C152	Kemano

NTS 093E/06

A.R.	Page	Property Name
17962	C153	Cole
17991	C152	Core

NTS 093E/09

A.R.	Page	Property Name
17520	C153	Uduk

NTS 093E/10

A.R.	Page	Property Name
17443	C153	Tahtsa Reach

NTS 093E/11

A.R.	Page	Property Name
17228	C153	Coles Creek
17311	C154	Kate
17312	C153	Berr
17313	C154	Troy
17314	C154	Wing
17654	C153	Troitsa Peak
17792	C154	Troitsa Peak
17993	C154	Sky

NTS 093E/13

A.R.	Page	Property Name
16757	C154	New Moon
16870	C154	New Moon

NTS 093E/14

A.R.	Page	Property Name
17315	C155	Tab

NTS 093E/15

A.R.	Page	Property Name
17343	C155	Tets
17804	C155	Shelford Hills
18137	C155	Dambo

NTS 093F/02

A.R.	Page	Property Name
16837	C155	Becky Jo
17032	C155	Blackwater-Davidson
17866	C156	Dave

NTS 093F/03

A.R.	Page	Property Name
16995	C156	Wolf

NTS 093F/05

A.R.	Page	Property Name
17679	C156	Exo

NTS 093F/07

A.R.	Page	Property Name
17174	C156	Pig
17697	C156	Nechako Range

NTS 093F/10

A.R.	Page	Property Name
16733	C156	Trout

NTS 093F/11

A.R.	Page	Property Name
18092	C157	Barb-Gusty
18191	C157	White

NTS 093F/12

A.R.	Page	Property Name
17673	C157	Tena
18189	C157	Rhub-Barb

NTS 093F/13

A.R.	Page	Property Name
16797	C157	Boss

NTS 093F/15

A.R.	Page	Property Name
17807	C158	Holy Cross

NTS 093G/01

A.R.	Page	Property Name
16877	C158	Henric
16948	C158	Henric
16972	C159	Umi
17178	C158	Mary
17278	C158	Cottonwood
17309	C159	Ahbau
17329	C159	Sue
17388	C158	Boo
17389	C159	Boo
17394	C158	Shalom
18070	C159	Umi

NTS 093G/02

A.R.	Page	Property Name
17524	C159	Fraser River Placer

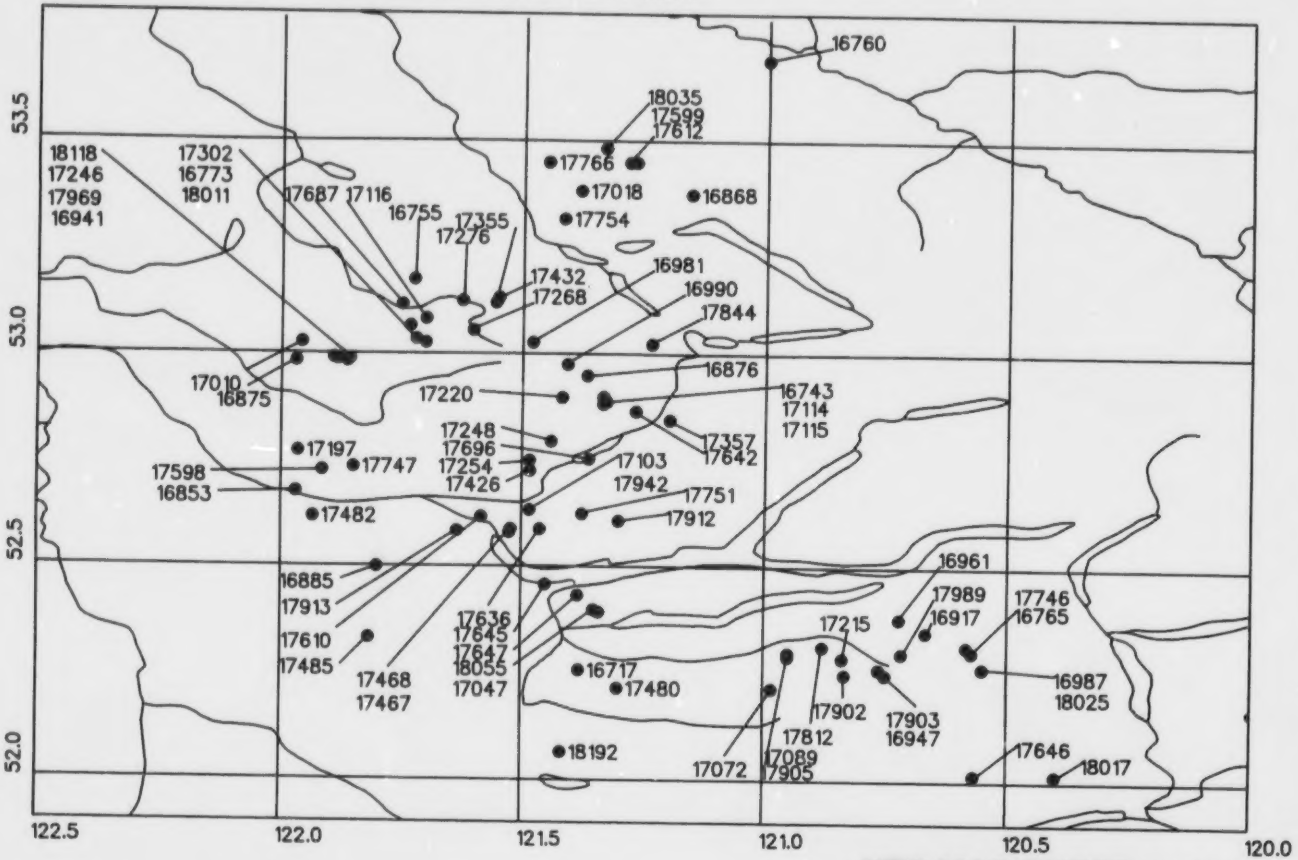
NTS MAP SHEET 093B, C, E, F, G, J, K, M, N, O

A.R.	Page	Property Name
NTS 093G/07		
17548	C160	Tiger
NTS 093G/14		
17805	C160	Jen
NTS 093J/01		
17561	C163	Com
NTS 093J/13		
17216	C164	Alpha (Beta)
17547	C164	TSIL
17808	C164	PM
17873	C164	Windy
NTS 093J/14		
16880	C164	Plasway
18101	C164	Opus
NTS 093K/01		
18072	C164	Fish Lake
NTS 093K/04		
16786	C165	Bruce
NTS 093K/05		
17529	C165	Deck
NTS 093K/06		
17506	C165	Yara
NTS 093K/07		
16766	C165	Snowbird
17895	C165	Mag
NTS 093K/11		
18120	C165	W. Boyd
NTS 093K/12		
17294	C165	Butter
NTS 093K/14		
17173	C166	Mount Sydney Williams
17944	C166	New
18089	C166	Klone
NTS 093K/16		
16763	C166	Tas
16814	C167	Tas East
17005	C167	Zana
17234	C167	Tas
17463	C166	Cripple Lake
18020	C166	Max
18100	C167	Tas East

A.R.	Page	Property Name
NTS 093M/01		
16754	C174	Bell Mine
16785	C175	Copper
16992	C174	Bell Mine
17774	C175	Fireweed
17864	C175	Saddle Hill
NTS 093M/03		
17135	C175	Blunt Mountain
NTS 093M/04		
16714	C175	Rocher Debouce
NTS 093M/05		
17290	C176	Pinenut
17363	C176	Bonnie
17657	C176	Canadian Queen
17658	C175	American Boy
17915	C175	American Boy
NTS 093M/06		
18064	C176	Max
NTS 093M/07		
16824	C176	French Peak Silver
NTS 093M/12		
17291	C176	Golden Girl
17525	C176	Discovery
NTS 093M/14		
17542	C177	Molly
NTS 093M/15		
17794	C177	Kot
NTS 093N/01		
16966	C177	Mt. Milligan
17793	C177	Mitzi
17860	C177	Rain
17936	C177	Mt. Milligan
18073	C178	Skook
NTS 093N/02		
17859	C178	Phil
17973	C178	Camp
18123	C178	Kael
NTS 093N/06		
17185	C178	Indata
17988	C178	Heath

A.R.	Page	Property Name
NTS 093N/07		
16865	C179	Gold
NTS 093N/09		
17153	C179	Dog
17872	C179	Ursa
18012	C179	Fair
NTS 093N/10		
17900	C179	Jim
17901	C179	Slate
NTS 093N/11		
16759	C180	Takla-Rainbow
17013	C180	Takla-Rainbow
17623	C179	Solstice
NTS 093N/12		
17298	C180	Gold
17578	C180	Bay
NTS 093N/13		
16737	C180	Ogden Mountain
NTS 093N/14		
16830	C180	Ato
16831	C181	Ling
NTS 093N/15		
16933	C181	Germansen
16946	C181	Nina
17867	C181	Nina Lake
17940	C181	Nina
NTS 093O/05		
16781	C182	Ursa
18181	C181	Nat
NTS 093O/12		
17734	C182	Ursa

ASSESSMENT REPORT LOCATION MAP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NTS MAP SHEET 093A,H

NTS MAP SHEET 093A, H

NTS 093A/01

A.R.	Page	Property Name
18017	C142	Redfern

NTS 093A/02

A.R.	Page	Property Name
17072	C142	Moly
17646	C142	Rec

NTS 093A/03

A.R.	Page	Property Name
17480	C142	Woodjam
18192	C142	Shelby

NTS 093A/05

A.R.	Page	Property Name
16885	C142	Astra
17485	C142	Solomon

NTS 093A/06

A.R.	Page	Property Name
16717	C143	Megabuck
17047	C143	Beekeeper
17645	C143	Redgold
17647	C143	Lea
18055	C143	Kwun

NTS 093A/07

A.R.	Page	Property Name
16765	C144	Frasergold
16917	C144	Mac
16947	C145	Crooked Lake
16961	C143	Forks
16987	C144	Kusk
17089	C145	Dor
17215	C145	Jamboree
17746	C144	Frasergold
17812	C145	Jamboree
17902	C145	Jamboree
17903	C143	Crooked Lake
17905	C145	Dor
17989	C144	Toppergold
18025	C144	Kusk

NTS 093A/11

A.R.	Page	Property Name
17103	C146	Nov
17254	C146	Duck
17426	C146	Duck
17636	C146	Spanish Mountain
17751	C146	B.B.
17912	C146	Hobson
17942	C146	Nov

NTS 093A/12

A.R.	Page	Property Name
16853	C147	BC
17197	C148	Nyland Lake
17467	C147	Rox
17468	C147	Ban
17482	C147	Jacob
17598	C148	Maud Lake
17610	C147	Dave
17747	C148	Ques
17913	C147	Lloyd

NTS 093A/13

A.R.	Page	Property Name
16875	C148	Wim-Cal
16941	C148	Kimo
17246	C149	Wim-Ta
17969	C148	Louise
18118	C148	Wim

NTS 093A/14

A.R.	Page	Property Name
16743	C150	Cunningham Creek
16876	C149	Bon
16990	C149	Antler Creek
17114	C150	Cunningham Creek
17115	C149	Cunningham Creek
17220	C149	Aster
17248	C150	D.D.
17357	C149	Maybe
17642	C150	Maybe
17696	C150	Mass

NTS 093H/03

A.R.	Page	Property Name
16981	C160	Proserpine
17844	C160	Babcock

NTS 093H/04

A.R.	Page	Property Name
16755	C161	Sugar Creek
16773	C161	Grub Gulch
17010	C162	Lightning Creek(Wingdam)
17116	C161	Logan
17268	C161	Jackpot
17276	C161	Wells
17302	C160	Barkerville
17355	C162	Yuma
17432	C160	EML
17687	C162	Willow
18011	C161	Mt. Nelson

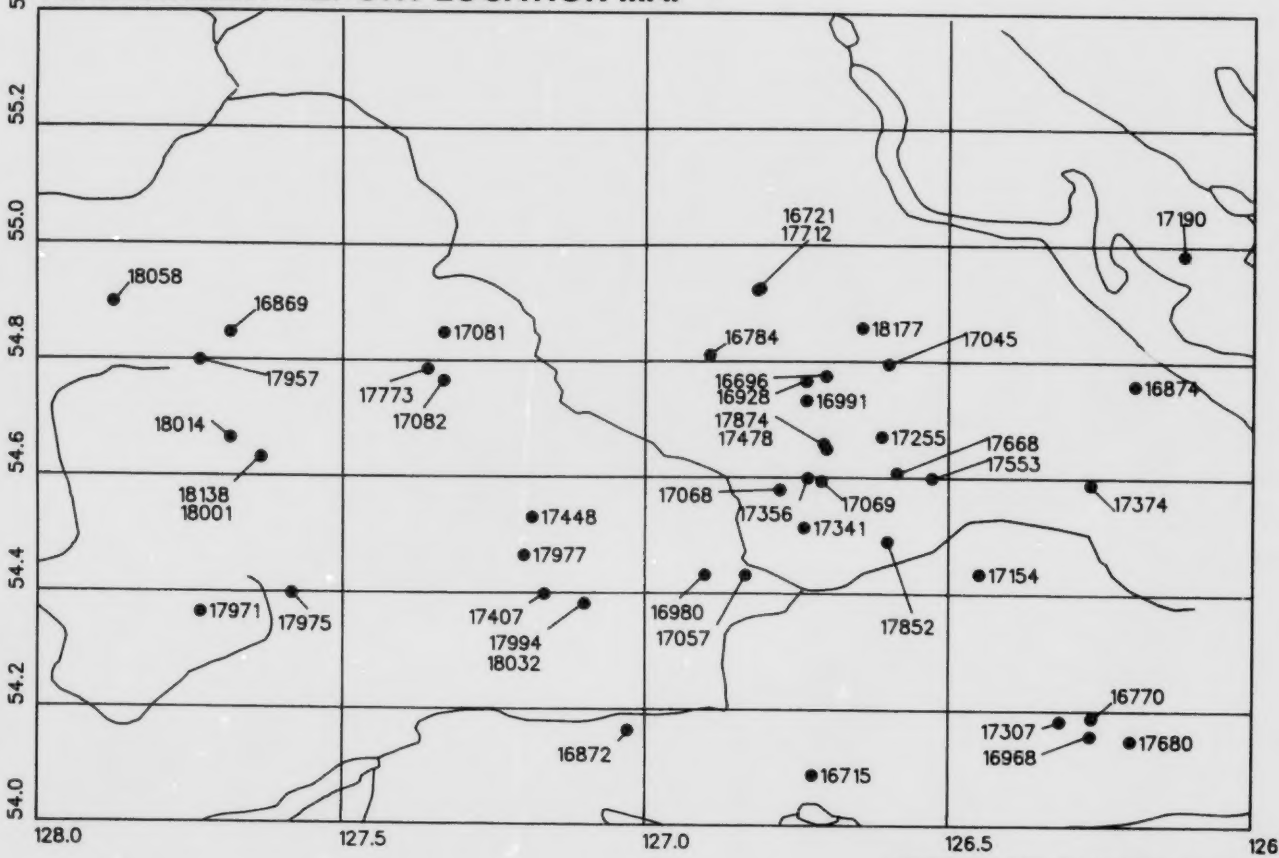
NTS 093H/06

A.R.	Page	Property Name
16868	C162	LF
17018	C163	In
17599	C162	Dominion Creek
17612	C163	Dominion Creek
17754	C162	Bowron River
17766	C163	WD
18035	C162	Dock

NTS 093H/11

A.R.	Page	Property Name
16760	C163	Dome Slate

ASSESSMENT REPORT LOCATION MAP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NTS MAP SHEET 093L

NTS MAP SHEET 093L

NTS 093L/01

A.R.	Page	Property Name
16770	C167	Minesite
16968	C167	Gaul
17307	C168	Sam
17680	C167	Dev

NTS 093L/02

A.R.	Page	Property Name
16715	C168	Silver Queen

NTS 093L/03

A.R.	Page	Property Name
16872	C168	Hagas

NTS 093L/05

A.R.	Page	Property Name
17971	C168	Alec
17975	C168	Urn

NTS 093L/06

A.R.	Page	Property Name
17407	C169	Loljuh
17977	C169	Sun
17994	C168	Erin
18032	C168	Houston

NTS 093L/07

A.R.	Page	Property Name
16980	C169	Emerson
17057	C169	Canyon
17852	C169	Lakeview

NTS 093L/08

A.R.	Page	Property Name
17154	C169	Apex

NTS 093L/09

A.R.	Page	Property Name
17374	C170	Richfield

NTS 093L/10

A.R.	Page	Property Name
16991	C170	Frances
17068	C171	Gio
17069	C170	Gio
17255	C170	Del Santo-BW
17341	C171	Mineral Hill
17356	C171	SO
17478	C170	Delsanto
17553	C170	Java
17668	C171	Java
17874	C170	Del Santo

NTS 093L/11

A.R.	Page	Property Name
17448	C171	Silver Hill

NTS 093L/12

A.R.	Page	Property Name
18001	C172	Tsai
18014	C171	Snow
18138	C171	Tsai

NTS 093L/13

A.R.	Page	Property Name
16869	C172	Tenn
17957	C172	Sand
18058	C172	Hidden Valley

NTS 093L/14

A.R.	Page	Property Name
17081	C172	Mt. Evelyn
17082	C172	Mamie
17773	C172	Victory

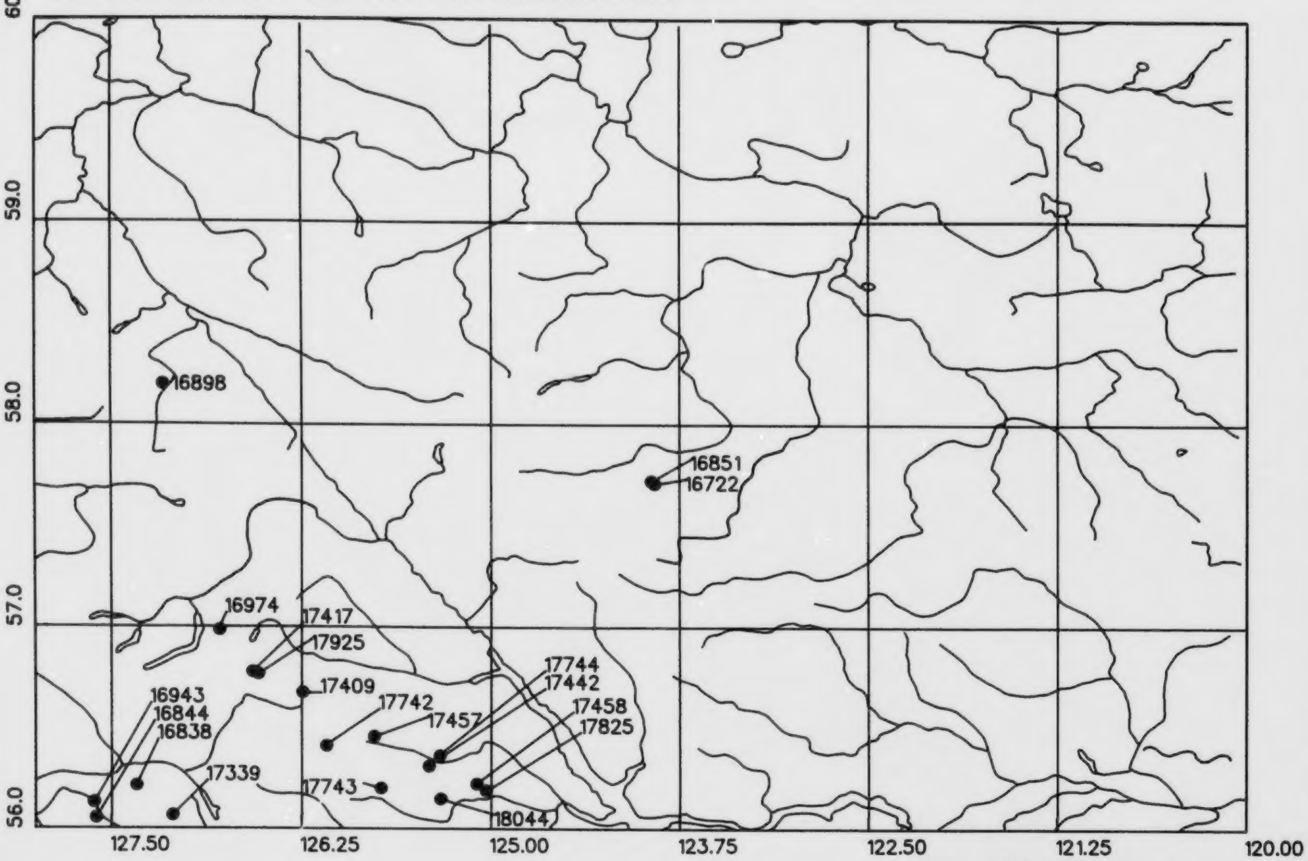
NTS 093L/15

A.R.	Page	Property Name
16696	C173	Ascot
16721	C174	Cronin
16784	C173	Big Onion
16928	C173	Ascot
17045	C173	Doray
17712	C174	Cronin
18177	C173	Su

NTS 093L/16

A.R.	Page	Property Name
16874	C174	Gold Dust
17190	C174	Red

ASSESSMENT REPORT LOCATION MAP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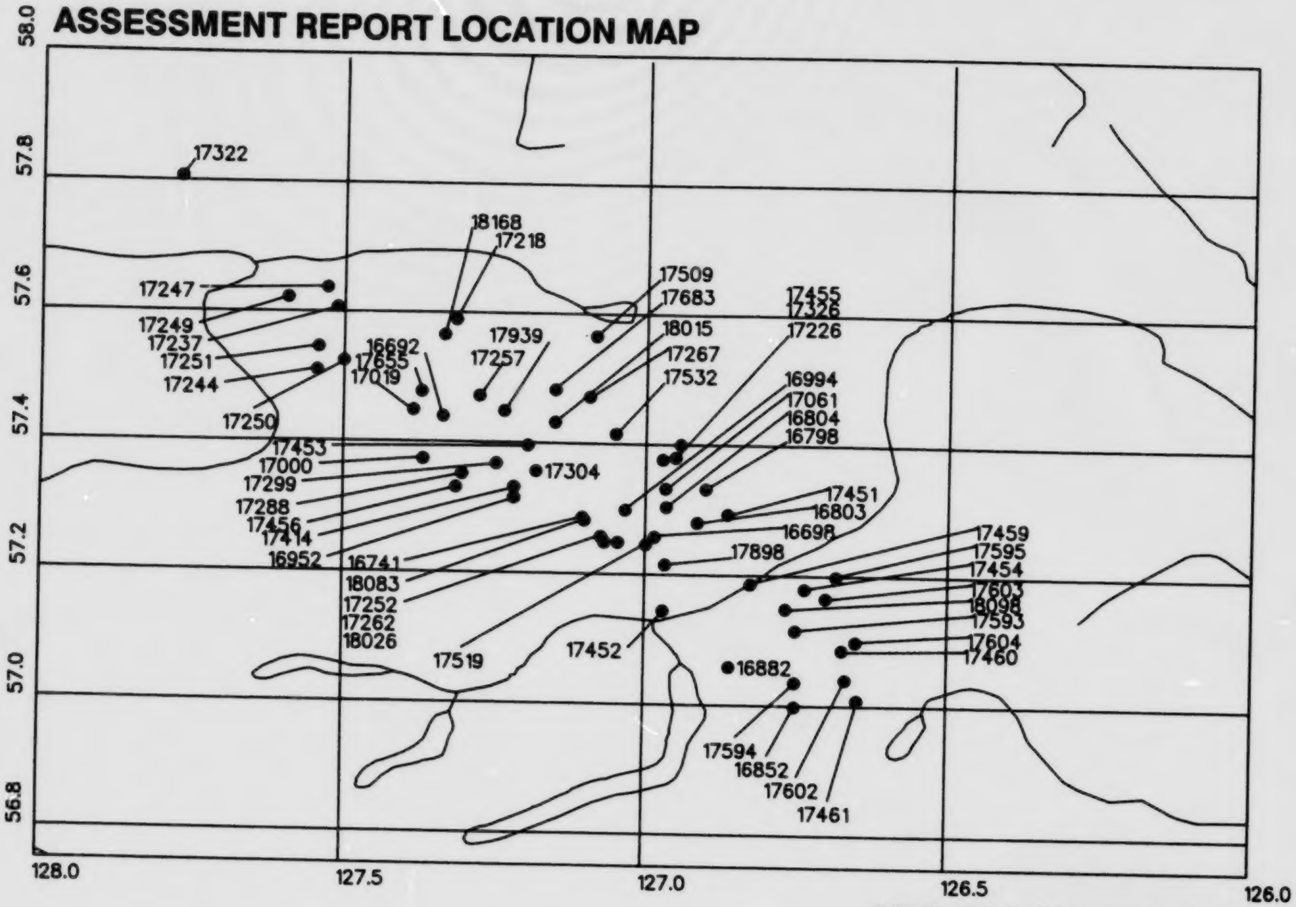
NTS MAP SHEET 094

NTS MAP SHEET 094C, D, G, L

A.R.	Page	Property Name
NTS 094C/03		
17458	C183	Cabin
17825	C183	Goats
18044	C183	Vega
NTS 094C/04		
17743	C183	Matel
NTS 094C/05		
17457	C183	Heidi-Lay
NTS 094C/06		
17442	C183	Dolly
17744	C183	Black Gold
NTS 094D/03		
16838	C184	Jake
17339	C184	Motase Lake
NTS 094D/04		
16844	C184	T.J.C.
16943	C184	Tommy Jack Creek
NTS 094D/08		
17742	C184	Ice
NTS 094D/09		
17409	C184	Inge
NTS 094D/15		
16974	C185	Nor
17417	C184	Jen
17925	C185	KMA
NTS 094G/12		
16722	C194	Cay
16851	C194	Cay
NTS 094L/03		
16898	C194	West

ASSESSMENT REPORT LOCATION MAP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NTS MAP SHEET 094E

NTS MAP SHEET 094E

NTS 094E/02

A.R.	Page	Property Name
16852	C186	Kemmess
16882	C187	Thutade Lake
17452	C187	Steel
17454	C186	Peak
17459	C186	Finlay River
17460	C185	Fog
17461	C185	Jim
17519	C186	Shasta
17593	C186	Nel
17594	C185	Dun
17595	C185	Eric
17602	C185	Needle
17603	C186	Peak
17604	C186	Tart
17898	C187	Leghorn
18098	C187	Wrich

NTS 094E/03

A.R.	Page	Property Name
17252	C188	Black
17262	C188	Black
18026	C187	Beachview

NTS 094E/06

A.R.	Page	Property Name
16692	C190	Mets
16741	C188	Chappelle Gold
16952	C190	Silver Pond
16994	C188	Dave Price
17000	C190	Golden Stranger
17019	C190	Discovery
17257	C190	Al
17267	C189	Joanna
17288	C191	New Law
17299	C189	Round Mountain
17304	C189	GWP
17414	C189	Lawyers
17453	C189	Kad
17456	C191	Scott
17532	C189	Mac
17655	C190	Al
17683	C188	Amethyst Valley
17939	C188	Furlong
18015	C189	JD
18083	C188	Chappelle

NTS 094E/07

A.R.	Page	Property Name
16698	C192	Shasta
16798	C191	Daniel
16803	C191	Anna
16804	C192	Lee
17061	C191	Argus
17226	C192	Gravy
17326	C191	Graves
17451	C192	Pil
17455	C191	Esta

NTS 094E/11

A.R.	Page	Property Name
17218	C192	Expeditor
17250	C192	Adoog
17509	C192	Ursus
18168	C193	Golden Lion

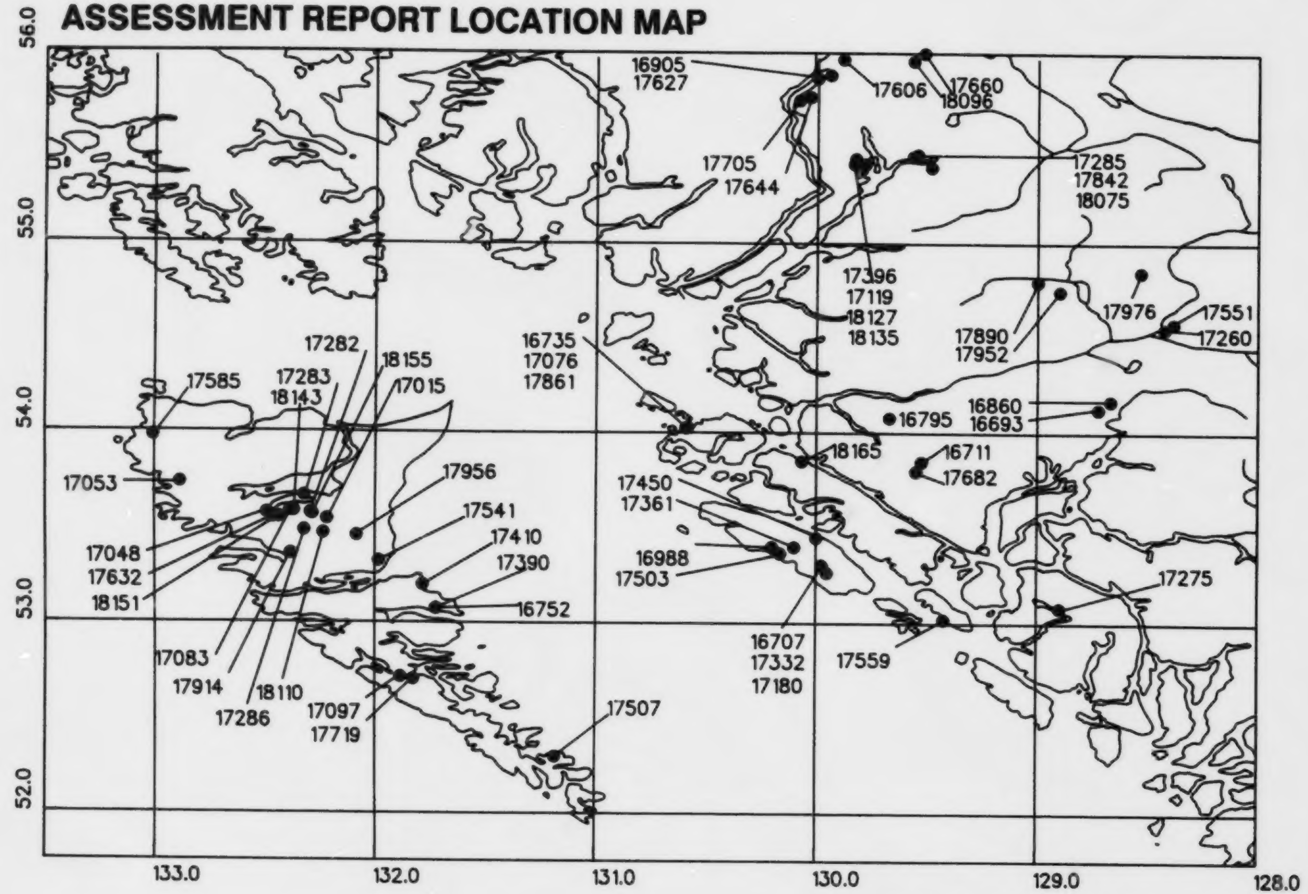
NTS 094E/12

A.R.	Page	Property Name
17237	C193	Stik
17244	C193	Adoog
17247	C193	Fred
17249	C193	Stik
17251	C193	Adoog

NTS 094E/13

A.R.	Page	Property Name
17322	C194	Chuc

ASSESSMENT REPORT LOCATION MAP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NTS MAP SHEET 103

NTS MAP SHEET 103 B, F, G, H, I, J, O, P

NTS 103B/06

A.R.	Page	Property Name
17507	C195	Archie

NTS 103B/12

A.R.	Page	Property Name
17097	C195	Lockeport
17719	C195	Eagle

NTS 103F/08

A.R.	Page	Property Name
17286	C195	Crcl
17914	C195	Golden Dyke Joint Venture
17956	C195	Black Bat
18110	C195	Nov

NTS 103F/09

A.R.	Page	Property Name
17015	C196	Bre
17048	C197	OB
17083	C196	Linda
17282	C196	Crcl
17283	C196	Crcl
17632	C196	Falcon
18143	C196	Leo
18151	C196	Banjo
18155	C197	Wanda Sheila

NTS 103F/10

A.R.	Page	Property Name
17053	C197	Virgo

NTS 103F/14

A.R.	Page	Property Name
17585	C197	Inconspicuous

NTS 103G/04

A.R.	Page	Property Name
16752	C197	More
17390	C197	More
17410	C198	Snow

NTS 103G/05

A.R.	Page	Property Name
17541	C198	Miller Creek

NTS 103G/08

A.R.	Page	Property Name
16988	C198	Ryan-Norma
17361	C198	Isla Mist
17450	C199	Skarn
17503	C198	Yellow Giant

NTS 103G/16

A.R.	Page	Property Name
18165	C199	IDI

NTS 103H/02

A.R.	Page	Property Name
17275	C199	Surf Inlet

NTS 103H/03

A.R.	Page	Property Name
17559	C199	Campania

NTS 103H/05

A.R.	Page	Property Name
16707	C200	Keech
17180	C199	Keech
17332	C200	VG

NTS 103H/13

A.R.	Page	Property Name
16711	C200	Ecstall
17682	C200	El Amino

NTS 103I/02

A.R.	Page	Property Name
16693	C200	Kitimat
16860	C200	J

NTS 103I/04

A.R.	Page	Property Name
16795	C201	Scotia

NTS 103I/09

A.R.	Page	Property Name
17260	C201	Lucky Boy
17551	C201	Columario Gold Mine

NTS 103I/10

A.R.	Page	Property Name
17952	C201	Misty

NTS 103I/15

A.R.	Page	Property Name
17890	C202	Mayo Creek
17976	C201	DX

NTS 103J/02

A.R.	Page	Property Name
16735	C202	Porcher Island
17076	C202	Porcher Island
17861	C202	Porcher Island

NTS 103O/09

A.R.	Page	Property Name
17705	C202	Bonus

NTS 103O/16

A.R.	Page	Property Name
16905	C202	Gold Wedge
17644	C202	Bonus

NTS 103P/05

A.R.	Page	Property Name
17119	C203	Anyox
17285	C203	Tidewater
17396	C203	Anyox
17842	C203	Tidewater
18127	C204	Goldkeish
18135	C203	Anyox

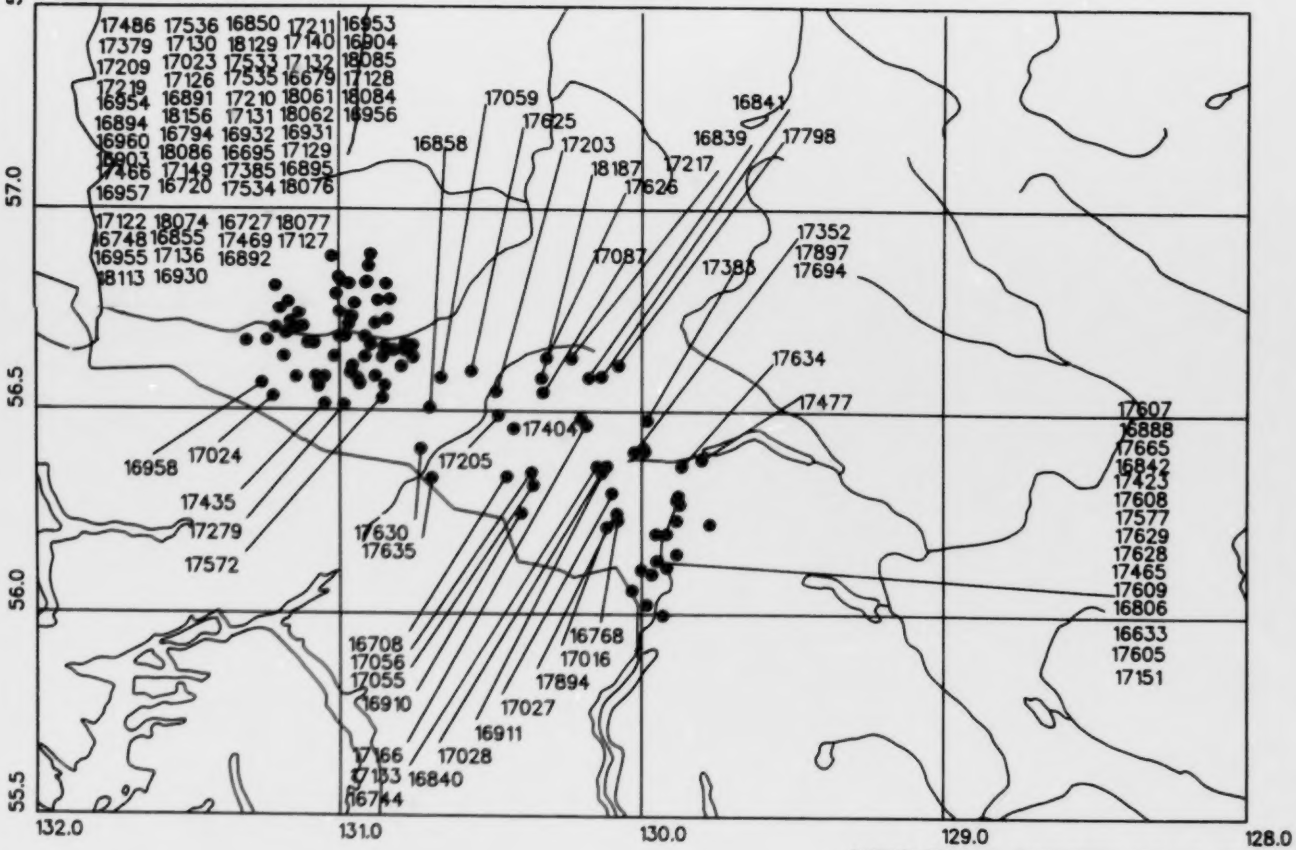
NTS 103P/06

A.R.	Page	Property Name
18075	C204	Silver Bow

NTS 103P/13

A.R.	Page	Property Name
17606	C205	Mobile
17627	C204	Heat
17680	C204	Croesus
18096	C204	Gold Mountain

ASSESSMENT REPORT LOCATION MAP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NTS MAP SHEET 104A,B

NTS MAP SHEET 104A, B

A.R.	Page	Property Name
NTS 104B/14		
16850	C222	New
17379	C223	Win
17385	C223	New-Ver
17486	C223	Win
17536	C222	Au
18129	C223	Ticker Tape
NTS 104B/15		
16695	C224	McLymont
16932	C224	McLymont
17140	C224	Joy
17210	C223	Gab
17211	C223	Gab
17533	C224	Mon
17534	C224	Mon
17535	C224	Mon

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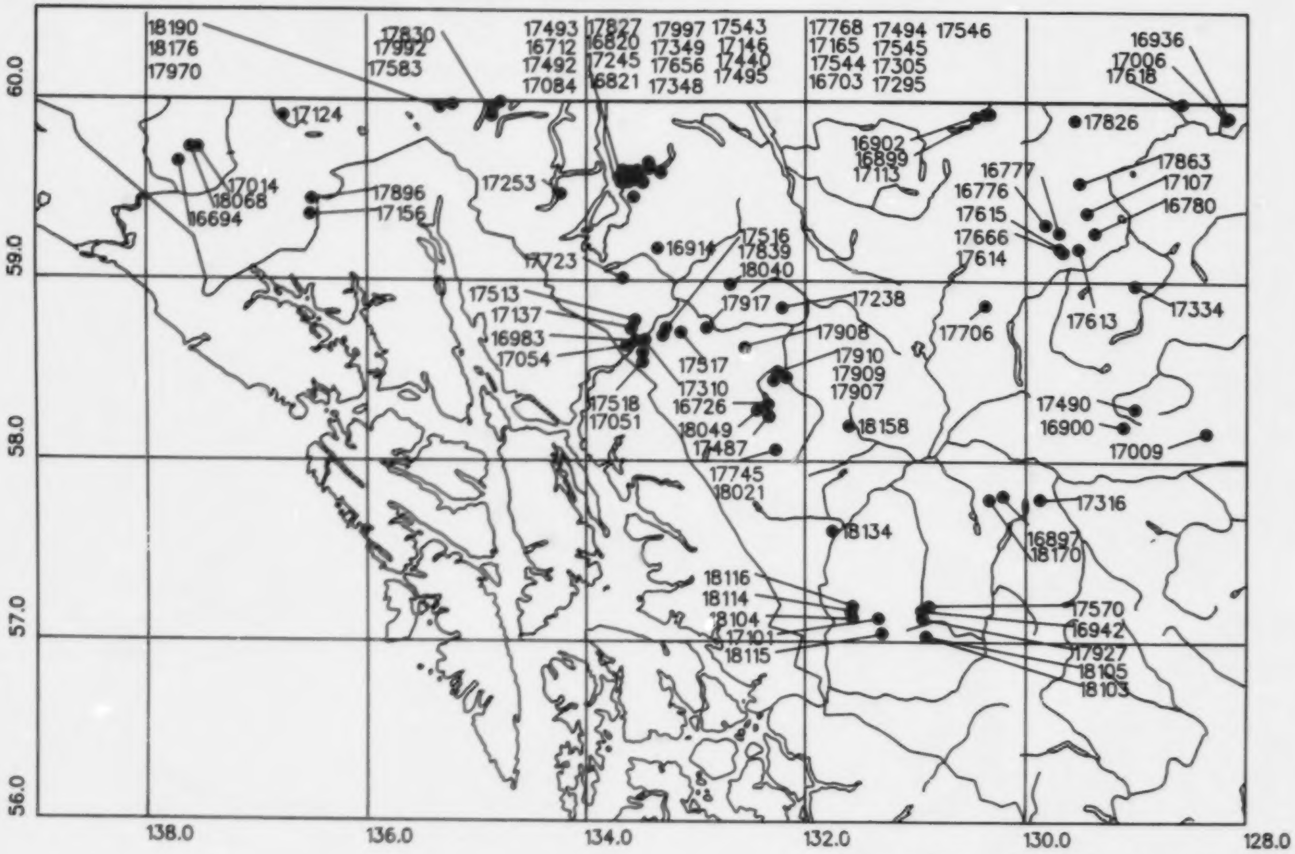
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NTS MAP SHEET 104/114

NTS MAP SHEET 104A, B

NTS 104A/04

A.R.	Page	Property Name
16633	C206	Ben Ali
17423	C207	Todd Creek
17465	C207	Joutel
17577	C206	A.E.I.
17605	C206	Arp
17607	C207	Kelly Girl
17608	C206	Chris
17609	C207	Silver Crown
17628	C207	Gaia
17629	C206	Ernst

NTS 104A/05

A.R.	Page	Property Name
16842	C209	Virginia K
16888	C208	AM
17383	C208	Brucejack
17477	C208	Bow
17634	C208	Cow
17665	C208	AM
17694	C208	Knip
17897	C208	Knip

NTS 104B/01

A.R.	Page	Property Name
16768	C209	Summit Lake
16806	C209	Big Missouri
17016	C209	Scottie Gold
17151	C209	Vancouver (Woodbine)
17894	C209	Tide

NTS 104B/07

A.R.	Page	Property Name
16858	C209	Candorada Stewart
17630	C210	Gold Unuk
17635	C210	Gold Boulder

NTS 104B/08

A.R.	Page	Property Name
16708	C212	Doc
16744	C211	Goldwedge
16840	C210	Feld
16910	C212	Nurse
16911	C210	Delta
17027	C210	Catspaw
17028	C211	Gamma
17055	C211	Bliss
17056	C212	Divel
17133	C211	Red River-Shore
17166	C211	Red River-BJ
17205	C212	Cumberland
17352	C211	Stellar
17404	C211	Corey

NTS 104B/09

A.R.	Page	Property Name
16839	C212	TR
16841	C212	TR
17087	C213	Unuk
17203	C213	Coul
17217	C213	VR
17626	C213	Lance
17798	C213	Treaty
18187	C213	Unuk

NTS 104B/10

A.R.	Page	Property Name
16720	C219	Waratah
16727	C215	Gossan
16794	C217	Joy
16855	C217	Josh
16892	C215	Gossan
16895	C218	Snip
16904	C218	Waratah
16930	C218	Stu
16931	C216	Gossan
16953	C216	Ian
16955	C214	Cam
16956	C215	Cam
17059	C214	E&L
17127	C215	Gim
17128	C218	Stu 4-5
17129	C214	Cam
17130	C216	Hag
17132	C214	Joy
17136	C215	Ger
17149	C216	Ian
17279	C218	Secretariat-Still
17469	C218	Ret
17572	C217	Morain
17625	C214	Paradigm
18062	C216	Inel
18074	C217	Joy
18076	C214	Cam
18077	C217	Josh
18084	C217	JP
18085	C215	Cam
18086	C216	Ian
18113	C219	Waratah

NTS 104B/11

A.R.	Page	Property Name
16679	C220	Iskut
16748	C222	Snip
16891	C220	Gossan
16894	C220	Jekill
16903	C221	Rob
16954	C222	Zip
16957	C219	Burnie
16958	C222	For
16960	C221	Raven
17023	C221	Rob
17024	C219	For
17122	C220	New Hemlo (New Aurum)
17126	C221	Rob
17131	C219	Gab (Stu)
17209	C221	Rob
17219	C221	Rob
17435	C220	Iskut River
17466	C222	Win
18061	C221	Skyline
18156	C220	Pez-Dan

NTS MAP SHEET 104G, H, I, J, K , M, N, O, P; 114P

A.R.	Page	Property Name
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17827	C233	Lodequest
NTS 104N/11		
16820	C233	Hey Hay
17146	C234	Spruce Creek (Shuksan)
17165	C234	Spruce Creek
17348	C233	O6
17440	C233	Lakeview
NTS 104N/12		
16703	C235	Spruce Creek
16712	C236	Yellowjacket
16821	C235	Jack
17084	C234	Cal
17245	C234	Deer
17295	C236	Yellowjacket
17305	C236	Yellowjacket
17349	C236	Spruce Creek
17492	C237	Yellowjacket North
17493	C235	Reef
17494	C234	Balsam
17495	C235	Lear
17543	C236	YJ 5
17544	C236	YJ 7-8
17545	C235	South Atlin
17546	C236	Yellowjacket
17656	C235	Pictou
17768	C234	Heart of Gold
17997	C234	Heart of Gold
NTS 104O/16		
16899	C237	Midway
16902	C237	Anne
17113	C237	Silverknife
NTS 104P/04		
17613	C237	Hunter
17614	C238	Pete
17615	C237	Nu Tara
17666	C237	Nome

A.R.	Page	Property Name
NTS 104P/05		
16776	C238	McDame
16777	C238	Taurus Gold Mine
NTS 104P/06		
16780	C238	Bad Bear
17107	C238	Goldbreak 25
NTS 104P/12		
17863	C238	Ax
NTS 104P/13		
17826	C239	Albert Creek
NTS 104P/15		
17618	C239	Roman
NTS 104P/16		
16936	C239	Hyland River Gold
17006	C239	Hyland River
NTS 114P/07		
17156	C240	Tsirku (Jarvis)
17896	C240	Gold Cord
NTS 114P/11		
17014	C240	Rime (Meredith)
18068	C240	Rime
NTS 114P/12		
16694	C240	Tats
NTS 114P/15		
17124	C240	Tatshensini River

NTS MAP SHEET 104G, H, I, J, K , M, N, O, P; 114P

A.R.	Page	Property Name
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16942	C225	Bee Jay
17570	C225	Bam
17927	C225	Bee Jay Gold
18103	C225	Foremore
18105	C225	Foremore
NTS 104G/03		
17101	C226	Trophy
18115	C225	Trek
NTS 104G/04		
18104	C226	Saddlehorn
18114	C226	Jack Wilsona
18116	C226	Icy
NTS 104G/12		
18134	C226	MJ
NTS 104G/16		
16897	C226	Castle
18170	C227	Quash Creek
NTS 104H/13		
17316	C227	Rok
NTS 104I/01		
17009	C227	Kutcho Creek
NTS 104I/03		
16900	C227	D
NTS 104I/06		
17490	C227	Falcon
NTS 104I/14		
17334	C227	Nizi
NTS 104J/04		
18158	C228	Moon
NTS 104J/16		
17706	C228	Thibert
NTS 104K/01		
17487	C228	Sam
17745	C228	Bandit
18021	C228	Bandit

A.R.	Page	Property Name
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16726	C229	Northern Gold
17907	C228	Ant
17909	C229	Sal
17910	C229	Vine
18049	C229	Ram
NTS 104K/10		
17908	C229	Vardis
17917	C229	Barb
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17051	C230	BR
17310	C230	Ericksen-Ashby
17516	C230	Hill
17517	C230	Lis
17518	C230	Ala
17839	C230	Cap
NTS 104K/12		
16983	C231	Big Bull
17054	C231	Tulsequah
17137	C231	Tulsequah
NTS 104K/13		
17513	C231	Mount Eaton
NTS 104K/15		
18040	C231	Per
NTS 104K/16		
17238	C231	PT
NTS 104M/08		
17253	C231	Engineer
NTS 104M/14		
17970	C232	Pim
18176	C232	Golden Partridge
18190	C232	Golden Partridge
NTS 104M/15		
17583	C232	Rigel
17830	C232	Pavey
17992	C232	Fin
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